Exam Code: 300-620
Exam Name: Implementing Cisco Application Centric Infrastructure (DCACI)

Exam A

QUESTION 1
Which endpoint learning operation is completed on the ingress leaf switch when traffic is received from a Layer 3 Out?

A. The source MAC address of the traffic is learned as a local endpoint.
B. The source MAC address of the traffic is learned as a remote endpoint.
C. The source IP address of the traffic is learned as a remote endpoint.
D. The source IP address of the traffic is learned as a local endpoint.

Correct Answer: B
Section:

QUESTION 2
An engineer must configure a group of servers with a contract that uses TCP port 80. The EGP that contains the web servers requires an external Layer 3 cloud to initiate communication. Which action must be taken to meet these requirements?

A. Configure the EGP as a provider and L3 out as consumer of the contract.
B. Configure OSPF to exchange routes between the L3 out and EGP.
C. Configure a taboo contract and apply it to the EPG.
D. Configure the EPG as a consumer and L3 out as a provider of the contract.

Correct Answer: A
Section:

QUESTION 3
The unicast routing feature is enabled on the bridge domain. Which two conditions enable the Cisco ACI leaf to learn a source IP as a local endpoint? (Choose two.)

A. Through Ethernet traffic received in a bridge domain.
B. IP traffic routed through an SVI.
C. Through VXLAN traffic received on the uplink.
D. IP traffic routed through a Layer 3 Out.
E. Through ARP received on an SVI.

Correct Answer: B, E
Section:
Explanation:
https://www.cisco.com/c/en/us/solutions/collateral/data-center-virtualization/application-centricinfrastructure/white-paper-c11-739989.html

A Cisco ACI leaf switch follows these steps to learn a local endpoint MAC address and IP address:

1. The Cisco ACI leaf receives a packet with a source MAC Address (MAC A) and source IP Address (IP A).
2. The Cisco ACI leaf learns MAC A as a local endpoint.
3. The Cisco ACI leaf learns IP A tied to MAC A if the packet is an ARP packet.
4. The Cisco ACI leaf learns IP A tied to MAC A if the packet is routed.

In Figure 5, the packet is Layer 3 traffic with the Cisco ACI bridge domain Switch Virtual Interface (SVI) as its default gateway. Therefore, both the MAC address and IP address (Src MAC S and Src IP 192.168.1.1 in the figure) are learned as a single local endpoint on LEAF1, and only IP address 192.168.1.1 is learned as a remote endpoint on LEAF2.

QUESTION 4
When does the Cisco ACI leaf learn a source IP or MAC as a remote endpoint?

A. When VXLAN traffic arrives on a leaf fabric port from the spine and outer source IP is in the Layer 3 Out EPG subnet range.
B. When VXLAN traffic arrives on a leaf fabric port from the spine and outer source IP is in the bridge domain subnets range.
C. When VXLAN traffic arrives on a leaf fabric port from the spine and inner source IP is in the Layer 3 Out EPG subnet range.
D. When VXLAN traffic arrives on a leaf fabric port from the spine and inner source IP is in the bridge domain subnets range.

Correct Answer: D
Section:

QUESTION 5
A RADIUS user resolves its role via the Cisco AV Pair. What object does the Cisco AV Pair resolve to?

A. tenant
B. security domain
C. primary Cisco APIC
D. managed object class

Correct Answer: D
Section:
Explanation:
Reference: https://www.cisco.com/c/en/us/td/docs/switches/datacenter/aci/apic/sw/2-x/Security_config/b_Cisco_APIC_Security_Configuration_Guide/b_Cisco_APIC_Security_Guide_chapter_01011.html

QUESTION 6
Which feature dynamically assigns or modifies the EPG association of virtual machines based on their attributes?

A. vzAny contracts
B. standard contracts
C. application EPGs
D. uSeg EPGs

Correct Answer: D
Section:

QUESTION 7
Which feature allows firewall ACLs to be configured automatically when new endpoints are attached to an EPG?

A. ARP gleaning

B. dynamic endpoint attach

C. hardware proxy

D. network-stitching

Correct Answer: B
Section:

QUESTION 8
An engineer is implementing Cisco ACI at a large platform-as-a-service provider using APIC controllers, 9396PX leaf switches, and 9336PQ spine switches. The leaf switch ports are configured as IEEE 802.1p ports. Where does the traffic exit from the EPG in IEEE 802.1p mode in this configuration?

A. from leaf ports tagged as VLAN 0

B. from leaf ports untagged

C. from leaf ports tagged as VLAN 4094

D. from leaf ports tagged as VLAN 1

Correct Answer: A
Section:

QUESTION 9
How is an EPG extended outside of the ACI fabric?

A. Create an external bridged network that is assigned to a leaf port.

B. Create an external routed network that is assigned to an EPG.

C. Enable unicast routing within an EPG.

D. Statically assign a VLAN ID to a leaf port in an EPG.

Correct Answer: D
Section:
Explanation:
Reference: https://www.dclessons.com/l2-external-network-with-aci

QUESTION 10
Where is the COOP database located?

A. leaf

B. spine

C. APIC

D. endpoint

Correct Answer: B
Section:
Explanation:
Reference: https://www.cisco.com/c/en/us/solutions/collateral/data-centervirtualization/application-centric- infrastructure/white-paper-c11-739989.html

QUESTION 11
Which description regarding the initial APIC cluster discovery process is true?

A. The APIC uses an internal IP address from a pool to communicate with the nodes.

B. Every switch is assigned a unique AV by the APIC.

C. The APIC discovers the IP address of the other APIC controllers by using Cisco Discovery Protocol.

D. The ACI fabric is discovered starting with the spine switches.
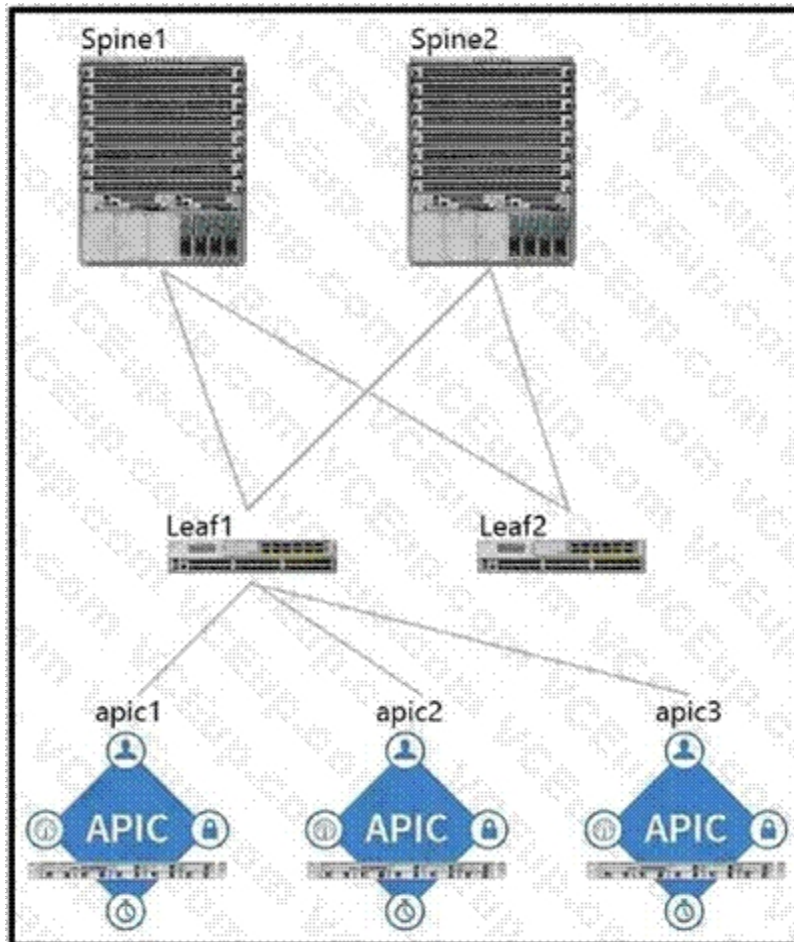
Correct Answer: A
Section:
Explanation:
Reference: https://www.cisco.com/c/en/us/td/docs/switches/datacenter/aci/apic/sw/1-x/acifundamentals/b_ACI-Fundamentals/b_ACI-Fundamentals_chapter_010011.html

QUESTION 12
Refer to the exhibit.

Which two components should be configured as route reflectors in the ACI fabric? (Choose two.)

A. Spine1

B. apic1

C. Spine2

D. Leaf1

E. Leaf2

F. apic2

Correct Answer: A, C
Section:

QUESTION 13
When creating a subnet within a bridge domain, which configuration option is used to specify the network visibility of the subnet?

A. limit IP learning to subnet

B. scope

C. gateway IP

D. subnet control

Correct Answer: C
Section:
Explanation:
Reference: https://www.cisco.com/c/en/us/td/docs/switches/datacenter/aci/apic/sw/1-x/Operating_ACI/guide/ b_Cisco_Operating_ACI/b_Cisco_Operating_ACI_chapter_0111.html

QUESTION 14
What does a bridge domain represent?

A. Layer 3 cloud

B. Layer 2 forwarding construct

C. tenant

D. physical domain

Correct Answer: B
Section:
Explanation:
Reference: https://www.cisco.com/c/en/us/td/docs/switches/datacenter/aci/apic/sw/2-x/L2_config/b_Cisco_APIC_Layer_2_Configuration_Guide/b_Cisco_APIC_Layer_2_Configuration_Guide_chapter_010.html

QUESTION 15
Which table holds IP address, MAC address and VXLAN/VLAN information on a Cisco ACI leaf?

A. endpoint

B. adjacency

C. RIB

D. ARP

Correct Answer: A
Section:
Explanation:
Reference: https://www.cisco.com/c/en/us/solutions/collateral/data-centervirtualization/application-centric- infrastructure/white-paper-c11-739989.html

QUESTION 16
Which two types of interfaces are supported on border leaf switches to connect to an external router? (Choose two.)

A. subinterface with VXLAN tagging

B. subinterface with 802.1Q tagging

C. FEX host interface

D. out of band interface

E. Switch Virtual Interface

Correct Answer: B, E
Section:

QUESTION 17
An engineer is extending an EPG out of the ACI fabric using static path binding. Which statement about the endpoints is true?

A. Endpoints must connect directly to the ACI leaf port.
B. External endpoints are in a different bridge domain than the endpoints in the fabric.
C. Endpoint learning encompasses the MAC address only.
D. External endpoints are in the same EPG as the directly attached endpoints.

Correct Answer: C
Section:

QUESTION 18
Which setting prevents the learning of Endpoint IP addresses whose subnet does not match the bridge domain subnet?

A. "Limit IP learning to network" setting within the bridge domain.
B. "Limit IP learning to subnet" setting within the EPG.
C. "Limit IP learning to network" setting within the EPG.
D. "Limit IP learning to subnet" setting within the bridge domain.

Correct Answer: D
Section:
Explanation:
Reference: https://www.cisco.com/c/en/us/td/docs/switches/datacenter/aci/apic/sw/2-x/L2_config/b_Cisco_APIC_Layer_2_Configuration_Guide/b_Cisco_APIC_Layer_2_Configuration_Guide_chapter_010.html

QUESTION 19
Which endpoint learning operation is completed on the egress leaf switch when traffic is received from an L3Out?

A. The source MAC and IP address of the traffic is learned as a local endpoint.
B. The source MAC address of the traffic is learned as a remote endpoint.
C. No source MAC or IP address of the traffic is learned as a remote endpoint.
D. The source IP address of the traffic is learned as a remote endpoint.

Correct Answer: B
Section:
Explanation:
Reference: https://www.cisco.com/c/en/us/solutions/collateral/data-centervirtualization/application-centric- infrastructure/white-paper-c11-739989.html

QUESTION 20
Refer to the exhibit.

```
<fvTenant name="ACILab">
    <fvCtx name="pvn1"/>
    <fvBD name="bd1">
        <fvRsCtx tnFvCtxName="pvn1"/>
        <fvSubnet ip="10.1.100.1/24"/>
    </fvBD>
</fvTenant>
```

Which two objects are created as a result of the configuration? (Choose two.)

A. application profile
B. attachable AEP
C. bridge domain
D. endpoint group
E. VRF

Correct Answer: C, E
Section:
Explanation:
Reference: https://www.cisco.com/c/en/us/td/docs/switches/datacenter/aci/apic/sw/2-x/rest_cfg/2_1_x/
b_Cisco_APIC_REST_API_Configuration_Guide/b_Cisco_APIC_REST_API_Configuration_Guide_chapter_01110.html

QUESTION 21
What must be enabled in the bridge domain to have the endpoint table learn the IP addresses of endpoints?

A. L2 unknown unicast: flood
B. GARP based detection
C. unicast routing
D. subnet scope

Correct Answer: C
Section:
Explanation:
Reference: https://hsvglobalschool.in/dhkycw/cisco-aci-bridge-domain.html

QUESTION 22
An engineer is extending EPG connectivity to an external network. The external network houses the Layer 3 gateway and other end hosts. Which ACI bridge domain configuration should be used?

A. Forwarding: Custom
   L2 Unknown Unicast: Hardware Proxy L3 Unknown Multicast Flooding: Flood Multi Destination Flooding: Flood in BD ARP Flooding: Enabled
B. Forwarding: Custom
   L2 Unknown Unicast: Flood
   L3 Unknown Multicast Flooding: Flood Multi Destination Flooding: Flood in BD ARP Flooding:
   Enabled
C. Forwarding: Custom
   L2 Unknown Unicast: Hardware Proxy L3 Unknown Multicast Flooding: Flood Multi Destination Flooding: Flood in BD ARP Flooding: Disabled
D. Forwarding: Custom
   L2 Unknown Unicast: Flood
   L3 Unknown Multicast Flooding: Flood Multi Destination Flooding: Flood in BD ARP Flooding:
   Disabled

Correct Answer: B
Section:

QUESTION 23
An engineer configured a bridge domain with the hardware-proxy option for Layer 2 unknown unicast traffic. Which statement is true about this configuration?

A. The leaf switch drops the Layer 2 unknown unicast packet if it is unable to find the MAC address in the local forwarding tables.
B. The Layer 2 unknown hardware proxy lacks support of the topology change notification.
C. The leaf switch forwards the Layers 2 unknown unicast packets to all other leaf switches if it is unable to find the MAC address in its local forwarding tables.
D. The spine switch drops the Layer 2 unknown unicast packet if it is unable to find the MAC address in the proxy database.

Correct Answer: A
Section:

QUESTION 24

An engineer configured Layer 2 extension from the ACI fabric and changed the Layer 2 unknown unicast policy from Flood to Hardware Proxy. How does this change affect the flooding of the L2 unknown unicast traffic?

A. It is forwarded to one of the spines to perform as a spine proxy.
B. It is flooded within the whole fabric.
C. It is dropped by the leaf when the destination endpoint is not present in the endpoint table.
D. It is forwarded to one of the APICs to perform as a proxy.

Correct Answer: A
Section:
Explanation:
Reference: https://www.cisco.com/c/en/us/td/docs/switches/datacenter/aci/apic/sw/2-x/L2_config/b_Cisco_APIC_Layer_2_Configuration_Guide/b_Cisco_APIC_Layer_2_Configuration_Guide_chapter_010.html

QUESTION 25
Which action sets Layer 2 loop migration in an ACI Fabric with a Layer 2 Out configured?

A. Enable MCP on the ACI fabric.
B. Disable STP in the external network.
C. Disable STP on the ACI fabric.
D. Enable STP on the ACI fabric.

Correct Answer: A
Section:

QUESTION 26
An engineer is implementing a connection that represents an external bridged network. Which two configurations are used? (Choose two.)

A. Layer 2 remote fabric
B. Layer 2 outside
C. Layers 2 internal
D. Static path binding
E. VXLAN outside

Correct Answer: B, D
Section:

QUESTION 27
Which two actions extend a Layer 2 domain beyond the ACI fabric? (Choose two.)

A. extending the routed domain out of the ACI fabric
B. creating a single homed Layer 3 Out
C. creating an external physical network
D. extending the bridge domain out of the ACI fabric
E. extending the EPG out of the ACI fabric

Correct Answer: D, E
Section:

QUESTION 28

An engineer must allow multiple external networks to communicate with internal ACI subnets.
Which action should the engineer take to assign the prefix to the class ID of the external Endpoint Group?

A. Enable the Export Route Control Subnet for the External Endpoint Group flag.

B. Enable an L3Out with Shared Route Control Subnet.

C. Configure subnets with the External Subnets for External EPG flag enabled.

D. Configure subnets with the Import Route Control Subnet flag enabled.

Correct Answer: C
Section:
Explanation:

https://www.cisco.com/c/en/us/td/docs/switches/datacenter/aci/apic/sw/1-x/ACI_Best_Practices/b_ACI_Best_Practices/b_ACI_Best_Practices_chapter_01001.html

The external subnets for an external EPG are used to define the subnets that should be classified to the external EPG. This policy does not affect routing. It is similar to an Access Control List (ACL) that assigns a prefix to the class id (pcTag) of the external EPG.

QUESTION 29

An engineer must ensure that Cisco ACI flushes the appropriate endpoints when a topology change notification message is received in an MST domain. Which three steps are required to accomplish this goal? (Choose three.)

A. Enable the BPDU interface controls under the spanning tree interface policy.

B. Configure a new STP interface policy.

C. Bind the spanning tree policy to the switch policy group.

D. Associate the STP interface policy to the appropriate interface policy group.

E. Create a new region policy under the spanning tree policy.

F. Map VLAN range to MAT instance number.

Correct Answer: A, B, D
Section:

QUESTION 30

A Cisco ACI bridge domain and VRF are configured with a default data-plane learning configuration.
Which two endpoint attributes are programmed in the leaf switch when receiving traffic? (Choose two.)
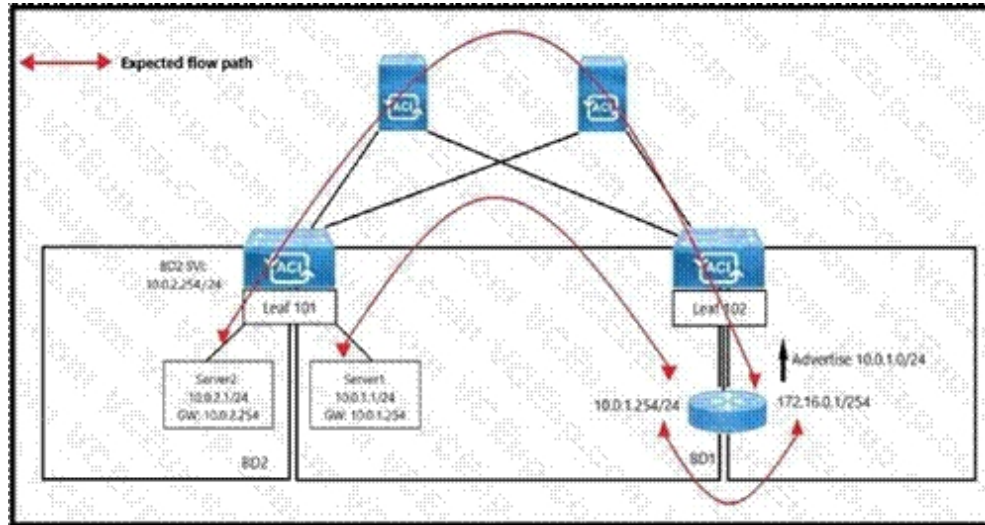
A. Remote MAC. IP

B. Remote Subnet

C. Local IP, not MAC

D. Local MAC, IP

E. Local Subnet

F. Remote IP

Correct Answer: A, D
Section:

QUESTION 31

Refer to the exhibit.

An engineer wants to initiate an ICMP ping from Server1 to Server2. The requirement is for the BD1 to enforce ICMP replies that follow the expected path. The packets must be prevented from taking the direct path from Leaf1 to Server1.

Which action must be taken on BD1 to meet these requirements?

A. Set L2 Unknown Unicast to Flood.

B. Set L2 Unknown Unicast to Hardware Proxy.

C. Disable Unicast Routing.

D. Enable ARP Flooding.

Correct Answer: B
Section:

QUESTION 32
The company ESXi infrastructure is hosted on the Cisco UCS-B Blade Servers. The company decided to take advantage of ACI VMM integration to enable consistent enforcement of policies across virtual and physical workloads. The requirement is to prevent the packet loss between the distributed virtual switch and the ACI fabric. Which setting must be implemented on a vSwitch policy to accomplish this goal?

A. Static Channel

B. MAC Pinning

C. LACP

D. LLDP

Correct Answer: D
Section:

QUESTION 33
An engineer is configuring ACI VMM domain integration with Cisco UCS-B Series. Which type of port channel policy must be configured in the vSwitch policy?

A. LACP Active

B. MAC Pinning

C. LACP Passive

D. MAC Pinning-Physical-NIC-load

Correct Answer: A
Section:

Explanation:

Reference: https://www.cisco.com/c/en/us/support/docs/cloud-systems-management/applicationpolicy-infrastructure-controller-apic/118965-config-vmm-aci-ucs-00.html

QUESTION 34

In-band is currently configured and used to manage the Cisco ACI fabric. The requirement is for leaf and spine switches to use out-of-band management for NTP protocol. Which action accomplishes this goal?

A. Select Out-of-Band as Management EPG in the default DateTimePolicy.

B. Create an Override Policy with NTP Out-of-Band for leaf and spine switches.

C. Change the interface used for APIC external connectivity to ooband.

D. Add a new filter to the utilized Out-of-Band-Contract to allow NTP protocol.

Correct Answer: A
Section:
Explanation:

https://www.cisco.com/c/en/us/support/docs/cloud-systems-management/application-policyinfrastructure-controller-apic/200128-Configuring-NTP-in-ACI-Fabric-Solution.html

QUESTION 35

An administrator must migrate the vSphere Management VMkernel of all ESXi hosts in the production cluster from the standard default virtual switch to a VDS that is integrated with APIC in a VMM domain. Which action must be completed in this scenario?

A. The Management VMkernel EPG resolution must be set to Pre-Provosion.

B. The administrator must create an in-band VMM Management EPG before performing the migration.

C. The administrator must set the Management VMkernel BD resolution immediacy to On-Demand.

D. The VMkernel Management BD must be located under the Management Tenant.

Correct Answer: A
Section:

QUESTION 36

A customer implements RBAC on a Cisco APIC using a Windows RADIUS server that is configured with network control policies. The APIC is as follows:
Tenant = TenantX
Security Domain = Tenantx-SD
User = X
The customer requires User X to have access to TenantX only, without any extra privilege in the Cisco ACI fabric domain. Which Cisco AV pair must be implemented on the RADIUS server to meet these requirement?

A. shell:domains = TenantX-SD/fabric-admin/,common//read-all

B. shell:domains = TenantX-SD/tenant-admin

C. shell:domains = TenantX-SD/tenant-ext-admin/,common//read-all

D. shell:domains = TenantX-SD/tenant-admin/,common//read-all

Correct Answer: D
Section:
Explanation:

https://www.cisco.com/c/en/us/td/docs/switches/datacenter/aci/apic/sw/2-x/Security_config/b_Cisco_APIC_Security_Guide/b_Cisco_APIC_Security_Guide_chapter_0100.html

Configuring an AV Pair on the External Authentication Server

The numerical value within the parentheses in the attribute/value (AV) pair string is used as the UNIX user ID of the user who is logged in using Secure Shell (SSH) or Telnet.

Procedure

Configure an AV pair on the external authentication server. The Cisco AV pair definition is as follows (Cisco supports AV pa

Example:

```
* shell:domains = domainA/writeRole1|writeRole2|writeRole3/readRole1|readRole2,domainB/writeRole1|writeRole2|wr]
    * shell:domains = domainA/writeRole1|writeRole2|writeRole3/readRole1|readRole2,domainB/writeRole1|write
```

These are the boost regexes supported by APIC:
```
uid_regex("shell:domains\\s*[=:]\\s*((\\S+?/\\S*?/\\S*?)(,\\S+?/\\S*?/\\S*?){0,31})(\\(\\d+\\))$");
regex("shell:domains\\s*[=:]\\s*((\\S+?/\\S*?/\\S*?)(,\\S+?/\\S*?){0,31})$");
```

The following is an example:
```
shell:domains = coke/tenant-admin/read-all,pepsi//read-all(16001)
```

QUESTION 37

A network engineer must backup the PRODUCTION tenant. The configuration backup should be stored on the APIC using a markup language and contain all secure information. Which export policy must be used to meet these requirement?

A.

B.

Name: Export-Tenant-Production
Description: optional

Format: json **xml**

Start Now: **Yes** No

Target DN: uni/tn-PRODUCTION
Snapshot: ☐
Scheduler: select a value ⌄
Export Destination: rmt-backup-01 ⌄ ⤢
Modify Global AES Encryption Settings: **Enabled** ↗

C.

Name: Export-Tenant-Production
Description: optional

Format: json **xml**

Start Now: **Yes** No

Target DN: uni/PRODUCTION
Snapshot: ☑
Scheduler: select a value ⌄
Modify Global AES Encryption Settings: **Enabled** ↗

D.

Correct Answer: D
Section:

QUESTION 38
An engineer must create a backup of the Cisco ACI fabric for disaster recovery purposes. The backup must be transferred over a secure and encrypted transport. The backup file must contain all user and password related information. The engineer also wants to process and confirm the backup file validity by using a Python script. This requires the data structure to have a format similar to a Python dictionary. Which configuration set must be used to meet these requirements?

A. Under the Create Remote location settings, select Protocol: FTP
   Under the Export policy, select
   - Format: XML
   - Modify Global AES Encryption Settings: Enabled
B. Under the Create Remote location settings, select Protocol: FTP
   Under the Export policy, select
   - Format: XML
   - Modify Global AES Encryption Settings: Disabled
C. Under the Create Remote location settings, select Protocol: SCP
   Under the Export policy, select
   - Format: JSON
   - Modify Global AES Encryption Settings: Disabled
D. Under the Create Remote location settings, select Protocol: SCP
   Under the Export policy, select
   - Format: JSON
   - Modify Global AES Encryption Settings: Enabled

Correct Answer: D
Section:

QUESTION 39
The Application team reports that a previously existing port group has disappeared from vCenter. An engineer confirms that the VM domain association for the EPG is no longer present. Which action determines which user is responsible for the change?

A. Check the EPG audit logs for the 'deletion' action and compare the affected object and user.

B. Evaluate the potential faults that are raised for that EPG.

C. Examine the health score and drill down to an object that affects the EPG combined score.

D. Inspect the server logs to see who was logging in to the APIC during the last few hours.

Correct Answer: B
Section:

QUESTION 40
What is the effect of enabling the disable Remote EP learn feature?

A. It disables remote IP endpoint learning on all leaf nodes in the fabric.

B. It disables remote IP endpoint learning on leaf switches that do not have L3Outs.

C. It limits learning of compute leaf endpoints on border leaves.

D. It prevents border leaf switches from receiving routes through peering with external routers.

Correct Answer: A
Section:
Explanation:
https://unofficialaciguide.com/2018/11/29/aci-best-practice-configurations/

QUESTION 41
What are two descriptions of ACI multi-site? (Choose two.)

A. The Inter-Site network routers should run OSPF to establish peering with the spines.

B. The Multi-Site orchestrator must be directly attached to one ACI leaf.

C. Routers in the inter-Site network must run OSPF. DHCP relay, and MP-BGP

D. ACI Multi-Site is a solution that allows one APIC cluster to manage multiple ACI sites

E. ACI Multi-Site is a solution that supports a dedicated APIC cluster per site

Correct Answer: A, E
Section:

QUESTION 42
An engineer must connect a new host to port 1 »'1 on Leaf 101. A Cisco ACI fabric has an MOP policy configured but experience excessive Layer 2 loops The engineer wants the Cisco ACI fabric to detect and prevent Layer 2 loops m the fabric Which set of actions accomplishes these goals'?

Enable MCP globally.
Associate the MCP policy with an interface selector.

Enable MCP globally.
Associate the MCP policy with an interface policy group.

Enable MCP locally.
Associate the MCP policy with an interface policy group.

Enable MCP locally.
Associate the MCP policy with an interface profile.

A. Option A

B. Option B

C. Option C

D. Option D

Correct Answer: B
Section:

QUESTION 43
A network engineer is integrating a new Hyperflex storage duster into an existing Cisco ACI fabric The Hyperflex cluster must be managed by vCenter so a new vSphere Distributed switch must be created In addition the hardware discovery must be performed by a vendor-neutral discovery protocol Which set of steps meets these requirements'?

Configure an Interface Policy group, select CDP, and apply it to the desired interfaces.
Enter the vCenter IP and credentials in the Create vCenter Controller dialog box.
In the Create VMware VMM domain dialog box, select Read-Only Mode

Configure an Interface Policy group, select CDP, and apply it to the designated interfaces.
Create a VMware VMM domain, add it to the VLAN pool, and associate it to the designated interfaces.
Select Read Only Mode In the Create VMware VMM domain dialog box.

Configure an Interface Policy group, select LLDP, and apply it to the selected interfaces.
Create a VLAN pool, add it to the VMware VMM domain, and include the appropriate interfaces.
Enter the vCenter IP and credentials in the Create vCenter Controller dialog box.

Configure a Switch Policy group, select LLDP, and apply it to the indicated interfaces.
Set up a VMware VMM domain and apply it to the appropriate interfaces.
Enter the APIC management IP and credentials in the Create vCenter Controller dialog box.

A. Option A

B. Option B

C. Option C

D. Option D

Correct Answer: C
Section:

QUESTION 44
A network engineer must configure a Cisco ACI system to detect network loops for untagged and tagged traffic The loop must be detected and slopped by disabling an interface within 4 seconds Which configuration must be used?

A. Option A
B. Option B
C. Option C

Correct Answer: B
Section:

QUESTION 45

Create Configuration Export Policy

Name:

Description:

Format: json xml

Start Now: Yes No

Target DN:

Snapshot: ☐

Scheduler: select a value

Export Destination: select a value

Modify Global AES Encryption Settings: Enabled ☐

Cancel   Submit

Refer to the exhibit A customer must back up the current Cisco ACl configuration securely to the remote location using encryption and authentication. The backup job must run once per day The customer s security policy mandates that any sensitive information including passwords, must not be exported from the device Which set of steps meets these requirements?

○ Export destination using FTP protocol.
  Use XML format.

○ Export destination using SCP protocol
  Disable Global AES Encryption.

○ Export destination using SCP protocol
  Use XML format.

○ Export destination using FTP protocol.
  Disable Global AES Encryption.

A. Option A
B. Option B
C. Option C
D. Option D

Correct Answer: B
Section:

QUESTION 46
What is MP-BGP used for in Cisco ACl fabric?

A. MP-BGP VPNv4 AF is used to propagate L3Out routes that are received from a border leaf to the fabric.
B. MP-BGP VPNv4 AF is used between spines in an ACI Multi-Pod fabric to propagate the endpoint
C. MP-BGP VPNv4 AF is used as protocol on L3Out between a border leaf and an external router
D. MP-BGP Layer 2 VPN EVPN AF is used to propagate L3Out routes that are received from a border leaf.

Correct Answer: A
Section:

QUESTION 47
An engineer must securely export Cisco APIC configuration snapshots to a secure, offsite location The exported configuration must be transferred using an encrypted tunnel and encoded with a platform-agnostic data format that provides namespace support Which configuration set must be used?

- Policy: Import Policy
  Protocol: TLS
  Format: XML

- Policy: Export Policy
  Protocol: TLS
  Format: JSON

- Policy: Import Policy
  Protocol: SCP
  Format: JSON

- Policy: Export Policy
  Protocol: SCP
  Format: XML

A. Option A
B. Option B
C. Option C
D. Option D

Correct Answer: D
Section:

QUESTION 48
A Cisco APIC is configured with RADIUS authentication as the default The network administrator must ensure that users can access the APIC GUI with a local account if the RADIUS server is unreachable. Which action must be taken to accomplish this goal?

A. Create an additional login domain that references local accounts
B. Enable the fallback check with the default authentication domain
C. Associate console authentication with the "RADIUS" realm.
D. Reference the local realm in the fallback domain

Correct Answer: D
Section:

QUESTION 49
A network engineer must allow secure access to the Cisco ACl out-of-band (OOB) management only from external subnets 10 0 0024 and 192.168 20 G'25. Which configuration set accomplishes this goal?

○ Create a L3Out in the MGMT tenant in OOB VRF.
Set External Management Network Instance Profile as a consumer of the OOB contract.
Create an External EPG with two subnet entries with the external subnets.

○ Create a PBR service graph in the MGMT tenant.
Create a management Profile with the required OOB EPG.
Redirect all traffic going into ACI management to the external firewall.
Create two subnet entries under the OOB Bridge domain with the required subnets.

○ Create an OOB contract that allows the required ports.
Provide the contract from the OOB EPG.
Consume the contract by the OOB External Management Network Instance Profile.
Create two subnet entries in the External Management Network Profile with the required subnets.

○ Create an EPG and BD in the MGMT tenant in OOB VRF.
Set OOB VRF to provide the contract.
Set a new EPG to consume the OOB contract.

A. Option A
B. Option B
C. Option C
D. Option D

Correct Answer: C
Section:

QUESTION 50

Refer to the exhibit A Cisco ACI fabric is using out-of-band management connectivity The APIC must access a routable host with an IP address of 192 168 11 2 Which action accomplishes this goal?

A. Change the switch APIC Connectivity Preference to in-band management
B. Remove the in-band management address from the APIC.
C. Add a Fabric Access Policy to allow management connections.
D. Modify the Pod Profile to use the default Management Access Policy

Correct Answer: B

QUESTION 51

A bridge domain for an EPC called "Web Servers" must be created in the Cisco APIC. The configuration must meet these requirements:

Only traffic to known Mac addresses must be allowed to reduce noice.

The multicast traffic must be limited to the ports that are participating in multicast routing.

The endpoints within the bridge domain must be kept in the endpoint table for 20 minultes without any updates.

Which set of steps configures the bridge domain that satisfies the requirements?

A. Select the ARP Flooding checkbox.
   Create an Endpoint Retention Policy with a Remote Endpoint Aging Interval of 20 minutes.
   Set L3 Unknown Multicast Flooding to Optimized Flooding

B. Set L2 Unknown Unicast to Hardware Proxy.
   Configure L3 Unknown Multicast Flooding to Optimized Flood.
   Create an Endpoint Retention Policy with a Local Endpoint Aging interval of 1200 seconds.

C. Switch L2 Unknown Unicast to Flood.
   Select the default Endpoint Retention Policy and set the Local Endpoint Aging to 20 minutes.
   Set Multicast Destination Flooding to Flood in Encapsulation.

D. Multicast Destination Flooding should be set to Flood in BD.
   Set L3 Unknown Multicast Flooding to Flood.
   Select the default Endpoint Retention Policy with a Local Endpoint Aging Interval of 1200 seconds.

Correct Answer: B
Section:

QUESTION 52

The company's Cisco ACI fabric hosts multiple customer tenants. To meet a service level agreement, the company is constantly monitoring the Cisco ACI environment. Syslog is one of the methods used for monitoring. Only events related to leaf and spine environmental information without specific customer data should be logged. To which ACI object must the configuration be applied to meet these requirements?

A. access policy

B. infra tenant

C. switch profile

D. fabric policy

Correct Answer: D
Section:

QUESTION 53

A Cisco ACI is integrated with a VMware vSphere environment. The port groups must be created automatically in vSphere and propagated to hypervisors when created in the ACI environment. Which action accomplishes this goal?

A. Associate the VMM domain with the EPGs that must be available in vCenter.

B. Assign the uplinks of the ESXi hosts to the vDS that the APIC created.

C. Configure contracts for the EPGs that are required on the ESXi hosts.

D. Create the port groups on the vCenter that reflect the EPG names in the APIC.

Correct Answer: A
Section:

QUESTION 54

An engineer is troubleshooting fabric discovery in a newly deployed Cisco ACI fabric and analyzes this output:

```
An engineer is troubleshooting fabric discovery in a newly deployed Cisco ACI fabric and analyzes this output:

LEAF101# show ip int brief vrf overlay-1
(...output truncated for brevity...)
IP Interface Status for VRF "overlay-1"(4)
Interface        Address           Interface Status
lo1023           10.233.44.32/32                protocol-up/link-up/admin-up

LEAF101# show vlan extended
VLAN     Name           Encap               Ports
--------  ----------------   --------------------   --------------------------------
8        infra:default    vxlan-38802518,    Eth1/1, Eth1/2, Eth1/47
                                              vlan-3600
```

Which ACI fabric address is assigned to interface lo1023?

A. Dynamic tunnel endpoint

B. Physical tunnel endpoint

C. Fabric tunnel endpoint

D. VXLAN tunnel endpoint

Correct Answer: D
Section:

QUESTION 55

An ACI engineer is implementing a Layer 3 out inside the Cisco ACI fabric that must meet these requirements:
The data center core switch must be connected to one of the leaf switches with a single 1G link.
The routes must be exchanged using a link-state routing protocol that supports hierarchical network design.
The data center core switch interface must be using 802.1Q tagging, and each vlan will be configured with a dedicated IP address.
Which set of steps accomplishes these goals?

A. Set up the ElGRP Protocol policy with the selected Autonomous System number. Set up the Routed External Network object ana Node Profile, selecting ElGRP Create the Switch profile, selecting Portchannel and the appropriate interfaces Create the default network and associate it with the Routed Outside object.

B. Set up the BGP Protocol policy with the Autonomous System number of 0. Configure an interface policy and an External Bridged Domain. Create an External Bridged Network using the configured VLAN pool. Build the Leaf profile, selecting Routed sub-interface and the appropriate VLAN.

C. Configure the OSPF Protocol policy with an area of 0. Create Routed Outside object and Node Profile, selecting OSPF as the routing protocol. Build the Interface profile, selecting Routed Sub-interface and the appropriate VLAN. Configure the External Network object with a network of 0.0.0.0/0.

D. Set up the ElGRP Protocol policy with the selected Autonomous System number. Create the Routed Outside object and Node Profile selecting ElGRP Configure the Interface profile selecting Routed Interface and the appropriate interfaces. Create the External Network object with a network of 0.0.0.0/0.

Correct Answer: C
Section:

QUESTION 56

An engineer must advertise a bridge domain subnet out of the ACI fabric to an OSPF neighbor. Which two configuration steps are required? (Choose two.)

A. Configure Subnet scope to Advertised Externally

B. Add External Subnet for External EPG flag under External EPG.

C. Create Route Control Profile with the export direction under External EPG.

D. Add L50ut profile to the bridge domain using Associated L30uts section

E. Configure the Subnet under the EPG level.

Correct Answer: A, D

QUESTION 57
An engineer must perform a Cisco ACI fabric upgrade that minimizes the impact on user traffic and allows only permitted users to perform an upgrade. Which two configuration steps should be taken to meet these requirements?

A. Divide Cisco APIC controllers into two or more maintenance groups.

B. Grant tenant-ext-admin access to a user who performs an upgrade

C. Combine all switches into an upgrade group.

D. Divide switches into two or more maintenance groups.

E. Grant the fabric administrator role to a user who performs an upgrade.

Correct Answer: D, E
Section:

QUESTION 58
An engineer is in the process of discovering a new Cisco ACI fabric consisting of two spines and four leaf switches. The discovery of leaf 1 has just been completed. Which two nodes are expected to be discovered next? (Choose two.)

A. spine 1

B. leaf 4

C. spine 2

D. leaf 3

E. leaf 2

Correct Answer: A, C
Section:

QUESTION 59
All workloads in VLAN 1001 have been migrated into EPG-1001. The requirement is to move the gateway address for VLAN 1001 from the core outside the Cisco ACI fabric into the Cisco ACI fabric.
The endpoints in EPG-1001 must route traffic to endpoints in other EPGs and minimize flooded traffic in the fabric. Which configuration set is needed on the bridge domain to meet these requirements?
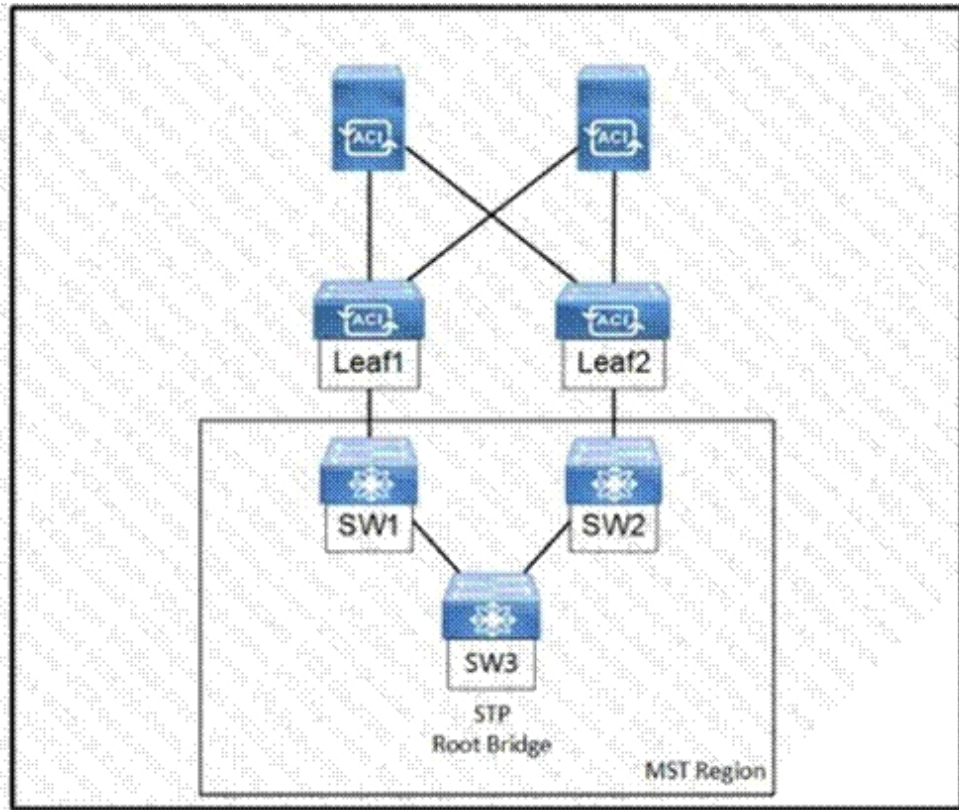
A. Disable ARP Flood Disable Limn Endpoint Learning

B. Enable Hardware Proxy Enable Unicas! Routing

C. Disable Local IP Learning Limit Disable Unicast Routing

D. Enable Flood Enable Unicast Routing

Correct Answer: B
Section:

QUESTION 60

Refer to the exhibit, An engineer is deploying a Cisco ACI environment but experiences a STP loop between switch1 and switch2. Which configuration step is needed to break the STP loop?

A. Configure the STP instance to VLAN mapping under the switch STP policy.
B. Configure a Layer 2 external bridged network on the interfaces facing the MST switches.
C. Enable the native VLAN on the interfaces facing the MST switches using static pons in a dedicated EPG.
D. Enable BPDU filter under the STP interface policy on the Interfaces lacing the MST switches.

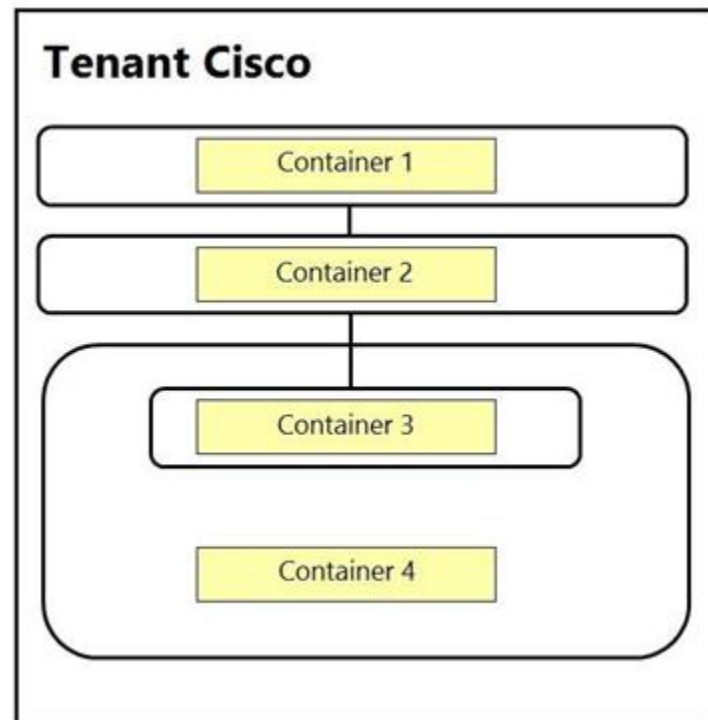**Correct Answer: C**
Section:

QUESTION 61
DRAG DROP
An engineer is configuring a VRF for a tenant named Cisco. Drag and drop the child objects on the left onto the correct containers on the right for this configuration.
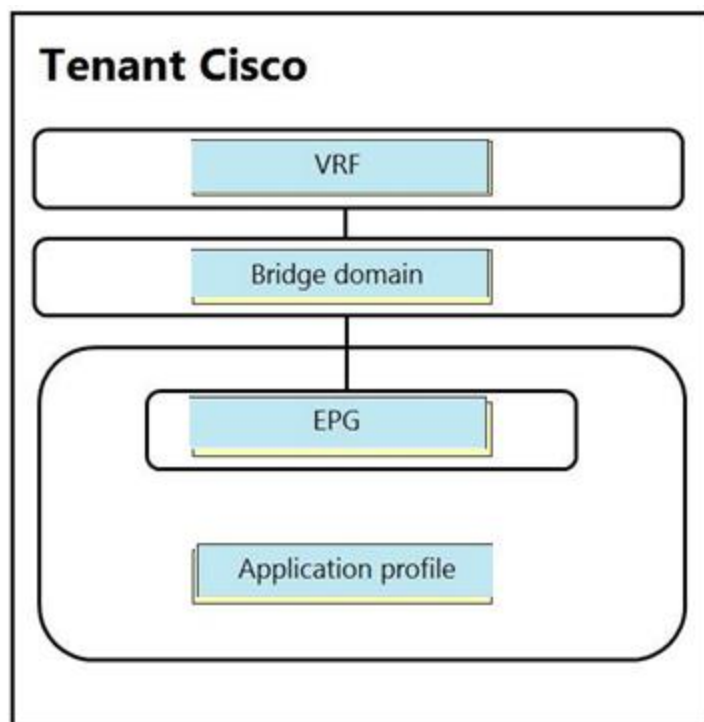
Select and Place:

Correct Answer:

Tenant Cisco
- VRF
- Bridge domain
- EPG
- Application profile
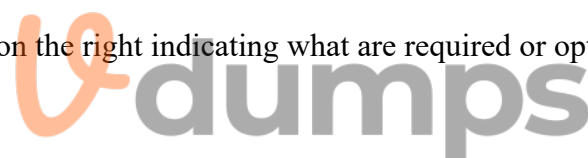
Section:
Explanation:

QUESTION 62
DRAG DROP
Drag and drop the Cisco ACI filter entry options from the left onto the correct categories on the right indicating what are required or optional parameters.

Select and Place:

| Name |
| ARP Flag |
| Ether Type |
| IP Protocol |
| Source Port From |

Optional Parameters

Required Parameters

Correct Answer:

QUESTION 63
DRAG DROP
Drag and drop the Cisco ACI Layer 4 to Layer 7 service insertion terms on the left to the correct descriptions on the right.
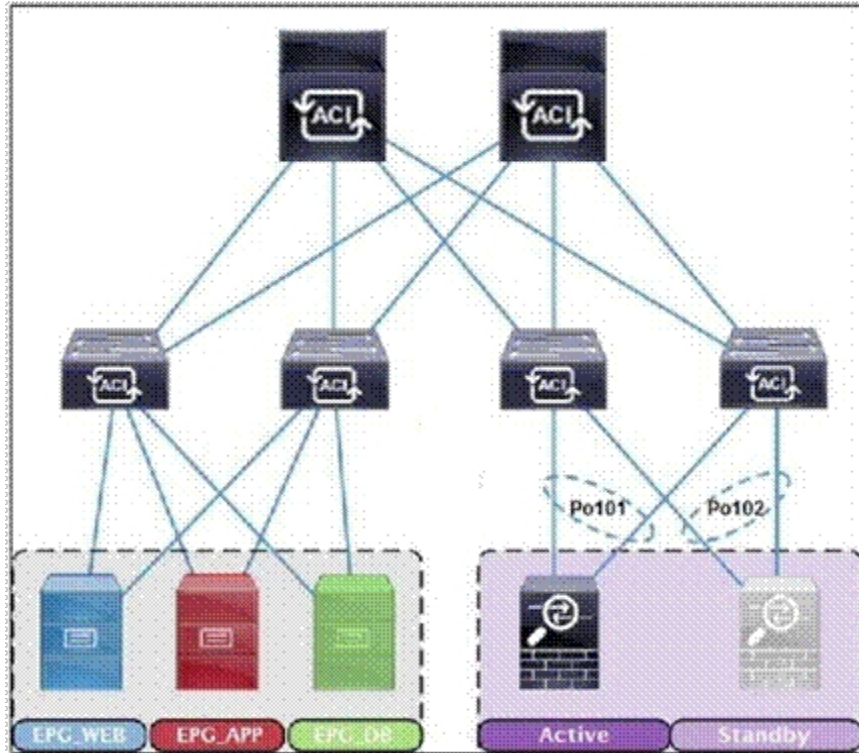
Select and Place:

Correct Answer:

Section:
Explanation:

QUESTION 64
DRAG DROP

Refer to the exhibit. A Cisco ACI fabric is newly deployed, and the security team requires more visibility of all inter EPG traffic flows. All traffic in a VRF must be forwarded to an existing firewall pair. During failover, the standby firewall must continue to use the same IP and MAC as the primary firewall. Drag and drop the steps from the left into the implementation order on the right to configure the service graph that meets the requirements. (Not all steps are used.)

Select and Place:

Answer Area

Apply a service graph template and select vzAny EPG as the consumer and provider.	Step 1
Select a redirect policy with the Layer 3 destination.	Step 2
Create a Layer 4 to Layer 7 service graph template.	Step 3
Select a redirect policy with enabled anycast and the Layer 3 destination.	Step 4
Select the same cluster interface under Consumer Connector and Provider Connector.	Step 5
Create a service bridge domain and a Layer 4 to Layer 7 device with one cluster interface.	Step 6
Select the existing contract with custom IP EtherType filter.	

Correct Answer:

Answer Area

	Create a service bridge domain and a Layer 4 to Layer 7 device with one cluster interface.
Select a redirect policy with the Layer 3 destination.	Create a Layer 4 to Layer 7 service graph template.
	Select a redirect policy with enabled anycast and the Layer 3 destination.
	Select the existing contract with custom IP EtherType filter.
	Select the same cluster interface under Consumer Connector and Provider Connector.
	Apply a service graph template and select vzAny EPG as the consumer and provider.

Section:

Explanation:

Reference: https://www.cisco.com/c/en/us/td/docs/switches/datacenter/aci/apic/sw/3-x/L4-L7_services_deployment/3_2_1/b_L4L7_Deploy_321/b_L4L7_Deploy_321_chapter_01001.html

QUESTION 65

DRAG DROP

An engineer must configure VMM domain integration on a Cisco UCS B-Series server that is connected to a Cisco ACI fabric. Drag and drop the products used to create VMM domain from the bottom into the sequence in which they should be implemented at the top. Products are used more than once.

Select and Place:

On the [_____] interface, create a dynamic VLAN pool.
On the [_____] interface, create a VMware vCenter domain.
On the [_____] interface, create a vCenter/vShield controller.
On the [_____] user interface, verify that the VMware vDS is created.

APIC		vCenter		UCS Manager

Correct Answer:

On the [APIC] interface, create a dynamic VLAN pool.
On the [APIC] interface, create a VMware vCenter domain.
On the [APIC] interface, create a vCenter/vShield controller.
On the [vCenter] user interface, verify that the VMware vDS is created.

[APIC]   [vCenter]   [UCS Manager]

Section:
Explanation:

QUESTION 66
DRAG DROP
An engineer must configure RADIUS authentication with Cisco ACI for remote authentication with out-of-band management access. Drag and drop the RADIUS configuration steps from the left into the required implementation order on the right. Not all steps are used.

Select and Place:

Specify and set the Cisco APIC connectivity preferences to ooband		step 1
Create the RADIUS provider group		step 2
Set the Cisco APIC connectivity preferences to ooband		step 3
Create the login domain for RADIUS		step 4
Set the Cisco APIC connectivity preferences to inband		
Create the RADIUS provider		

Correct Answer:

Specify and set the Cisco APIC connectivity preferences to ooband	Create the RADIUS provider
	Set the Cisco APIC connectivity preferences to ooband
	Create the login domain for RADIUS
Set the Cisco APIC connectivity preferences to inband	Create the RADIUS provider group

Section:
Explanation:

QUESTION 67
A customer creates Layer 3 connectivity to the outside network. However, only border leaf switches start receiving destination updates to other networks from the newly created L3Out. The updates must also be propagated to other Cisco
ACI leaf switches. The L3Out is linked with the EPGs via a contract. Which action must be taken in the pod policy group to accomplish this goal?

A. Apply a BGP route reflector policy.
B. Enable a COOP policy.
C. Configure an IS-IS policy.
D. Implement an access management policy.

Correct Answer: A
Section:

QUESTION 68
A network administrator configures AAA inside the Cisco ACI fabric. The authentication goes through the local users if the TACACS+ server is not reachable. If the Cisco APIC is out of the cluster, the access must be granted through the fallback domain. Which configuration set meets these requirements?

A. Ping Check: True
Default Authentication Realm: Local
Fallback Check: True

B. Ping Check: True
   Default Authentication Realm: TACACS+
   Fallback Check: False

C. Ping Check: False
   Default Authentication Realm: Local
   Fallback Check: False

D. Ping Check: False
   Default Authentication Realm: TACACS+
   Fallback Check: True

Correct Answer: D
Section:

QUESTION 69
An application team tells the Cisco ACI network administrator that it wants to monitor the statistics of the unicast and BUM traffic that are seen in a certain EPG. Which statement describes the collection statistics?

A. All EPGs in the Cisco ACI tenant object must be enabled for statistics to be collected.

B. Cisco ACI does not capture statistics at the EPG level. Only statistics that pass through ACI contracts can be monitored.

C. EPG statistics can be collected only for VMM domains. If a physical domain exists, statistics are not collected.

D. The collection of statistics is enabled on the EPG level by enabling the statistics for unicast and BUM traffic.

Correct Answer: D
Section:
Explanation:
https://www.cisco.com/c/en/us/td/docs/switches/datacenter/aci/apic/sw/1-x/Operating_ACI/guide/b_Cisco_Operating_ACI/b_Cisco_Operating_ACI_chapter_01011.html

EPG Level Statistics

The application owner would like to be able to monitor network-related information for their application, such as the aggregate amount of traffic to a specific tier. As an example, we will monitor the amount of traffic to the web tier of a given application. In this example, the default monitoring policies are appropriate, and they are simply extracting them from the system to be consumed externally. This information is useful in scenarios such as a new release being pushed, and to make sure that no traffic anomalies are created after the push.

QUESTION 70
Which routing protocol is supported between Cisco ACI spines and IPNs in a Cisco ACI Multi-Pod environment?

A. OSPF

B. ISIS

C. BGP

D. EIGRP

Correct Answer: A
Section:

QUESTION 71
An engineer must deploy Cisco ACI across 10 geographically separated data centers. Which ACI site deployment feature enables the engineer to control which bridge domains contain Layer 2 flooding?

A. GOLF

B. Multi-Site

C. Multi-Pod

D. Stretched Fabric

Correct Answer: B
Section:
Explanation:
https://www.cisco.com/c/en/us/td/docs/switches/datacenter/aci/aci_multisite/sw/2x/fundamentals/Cisco-ACI-Multi-Site-Fundamentals-Guide-211/Cisco-ACI-Multi-Site-Fundamentals-Guide-211_chapter_011.html#id_51188
From the web page, we see that multi-site has control over:
Stretched Bridge Domain with Layer 2 Broadcast Extension.
Stretched Bridge Domain with no Layer 2 Broadcast Extension.

QUESTION 72
Which class of ACI object is presented in this output?

A. Contract
B. Bridge Domain
C. Tenant
D. Endpoint

Correct Answer: A
Section:
Explanation:
https://www.cisco.com/c/en/us/td/docs/switches/datacenter/aci/apic/sw/4-x/openstack/ACIInstallation-Guide-for-Red-Hat-Using-OSP13-Director/m-configuring-ironic-for-openstack.html

QUESTION 73
A Cisco ACI environment consists of multiple silent hosts that are often relocated between leaf switches. When the host is relocated, the bridge domain takes more than a few seconds to relearn the host's new location. The requirement is to minimize the relocation impact and make the ACI fabric relearn the new location of the host faster. Which action must be taken to meet these requirements?

A. Set Unicast Routing to Enabled.
B. Configure ARP Flooding to Enabled.
C. Set L2 Unknown Unicast to Hardware Proxy.
D. Configure IP Data-Plane Learning to No.

Correct Answer: B
Section:

QUESTION 74
Refer to the exhibit.


```
ID: 4295457803
Description: Failed to form relation to MO qosdpppol-default of class qosDppPol in context
Severity: cleared
Affected Object: uni/tn-Raccoon_City/out-L3Out_Demo/lnodep-L3Out_Demo_nodeProfile/lifp-L3Out_Demo_interfaceProfile/rsingressQosDppPol
Delegated From:
Created: 2021-02-05T19 29 08 730+00.00
Code: F2044
Type: Config
Cause: resolution-failed
Change Set: state (Old missing-target, New formed), tDn (Old , New uni/tn-common/qosdpppol-default)
Action: modification
Domain: Infra
Life Cycle: Retaining
Count Fault Occurred: 1
Acknowledgement Status: false
```

Refer to the exhibit. An engineer configures an L3Out but receives the error presented. Which action clears the fault?

A. Acknowledge the QoS-related error.

B. Associate a custom QoS class.

C. Create a custom QoS policy.

D. Set the QoS policy to Level 3.

Correct Answer: A
Section:

QUESTION 75
A customer must upgrade the Cisco ACI fabric to use a feature from the new code release. However, there is no direct path from the current release to the desired one. Based on the Cisco APIC Upgrade/Downgrade Support Matrix, the administrator must go through one intermediate release.
Which set of steps must be taken to upgrade the fabric to the new release?

A. Upgrade the APICs to an interim release.
Upgrade the switches to an interim release.
Upgrade the APICs to the targeted release.
Upgrade the leaf and spine switches to the targeted release.

B. Upgrade the APICs to an interim release and then switches to an interim release.
When all switches are operational, upgrade leaf switches to the targeted release.
Upgrade the spine switches to the targeted release.
Upgrade the APICs to the targeted release.

C. Upgrade the APICs to an interim release.
Upgrade the leaf switches directly to the targeted release.
Upgrade the spine switches directly to the targeted release.
Upgrade the APICs to the targeted release.

D. Upgrade the APICs directly to the targeted release.
Upgrade the switches to an interim release.

When all switches are operational, upgrade the leaf switches to the targeted release.

Upgrade the spine switches to the targeted release.

Correct Answer: A
Section:

QUESTION 76
Refer to the exhibit.

```
leaf-102# show interface brief
!snip
-----------------------------------------------------------------------------
Port-channel VLAN    Type Mode    Status Reason                 Speed      Protocol
Interface
-----------------------------------------------------------------------------
Po3           46      eth  trunk   down   mac-pinning             inherit(D lacp
Po11          --      eth  fabric  up     none                    10G(D)    none
Po12          0       eth  trunk   down   mcp-loop-err-disable    inherit(D none
```

Refer to the exhibit. Which two configuration steps are completed before this output is generated?
(Choose two.)

A. MCP policy for the interface policy group for Port-channel 12 is enabled.
B. MCP Instance Policy default in the global access policies is enabled.
C. Error Disabled Recovery Policy for Loop Indication by MCP is set to True.
D. BPDU Guard is enabled for the interface policy group for Port-channel 12.
E. Spanning Tree Policy Region STP_4CAF232E48FF20 is added to the spanning-tree policy of the switch.

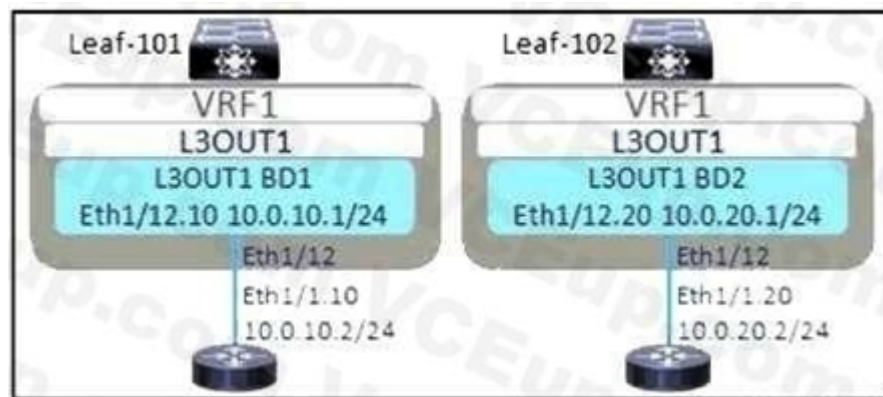**Correct Answer: A, D**
Section:

QUESTION 77
The customer is looking for redundant interconnection of the existing network to the new ACI fabric.
Unicast and multicast traffic must be routed between the two networks. Which L3Out implementation meets these requirements?
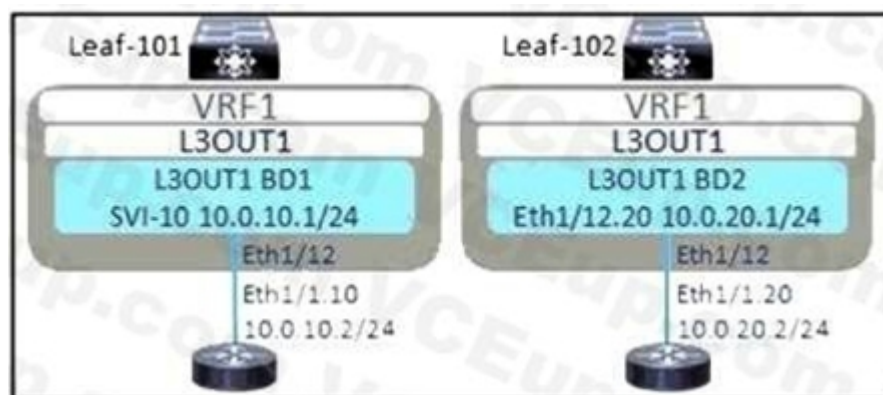
A.

B.

C.

D.

Correct Answer: A
Section:

QUESTION 78
A network engineer configures the Cisco ACI fabric to connect to vCenter with these requirements:
Port groups must be automatically created on the distributed virtual switch.
Port groups must use the VLAN allocation in the range between 20-30.
The deployment must optimize the CAM space on the leaf switches.
Which set of actions meets these criteria?

A. Create a dynamic VLAN pool with the VLAN range of 20-30.
   Create a VMM domain and associate it with the VLAN pool.
   Create the EPG and associate the domain.
   Set the deployment immediacy to On Demand.

B. Create a dynamic VLAN pool with the VLAN range of 20-30.

Create a physical domain and associate it with the VLAN pool.
Create the EPG and associate the domain.
Set the deployment immediacy to On Demand.

C. Create a static VLAN pool with the VLAN range of 20-30.
Create a physical domain and associate it with the VLAN pool.
Create the EPG and associate the domain.
Set the deployment immediacy to Immediate.

D. Create a static VLAN pool with the VLAN range of 20-30.
Create a VMM domain and associate it with the VLAN pool.
Create the EPG and associate the domain.

Set the deployment immediacy to Immediate.

Correct Answer: A
Section:

QUESTION 79
Refer to the exhibit.

Refer to the exhibit. A Cisco ACI environment hosts two e-commerce applications. The default contract from a common tenant between different application tiers is used, and the applications work as expected. The customer wants to move to more specific contracts to prevent unwanted traffic between EPGs. A network administrator creates the app-to-db contract to meet this objective for the application and database tiers. The application EPGs must communicate only with their respective database EPGs. How should this contract be configured to meet this requirement?
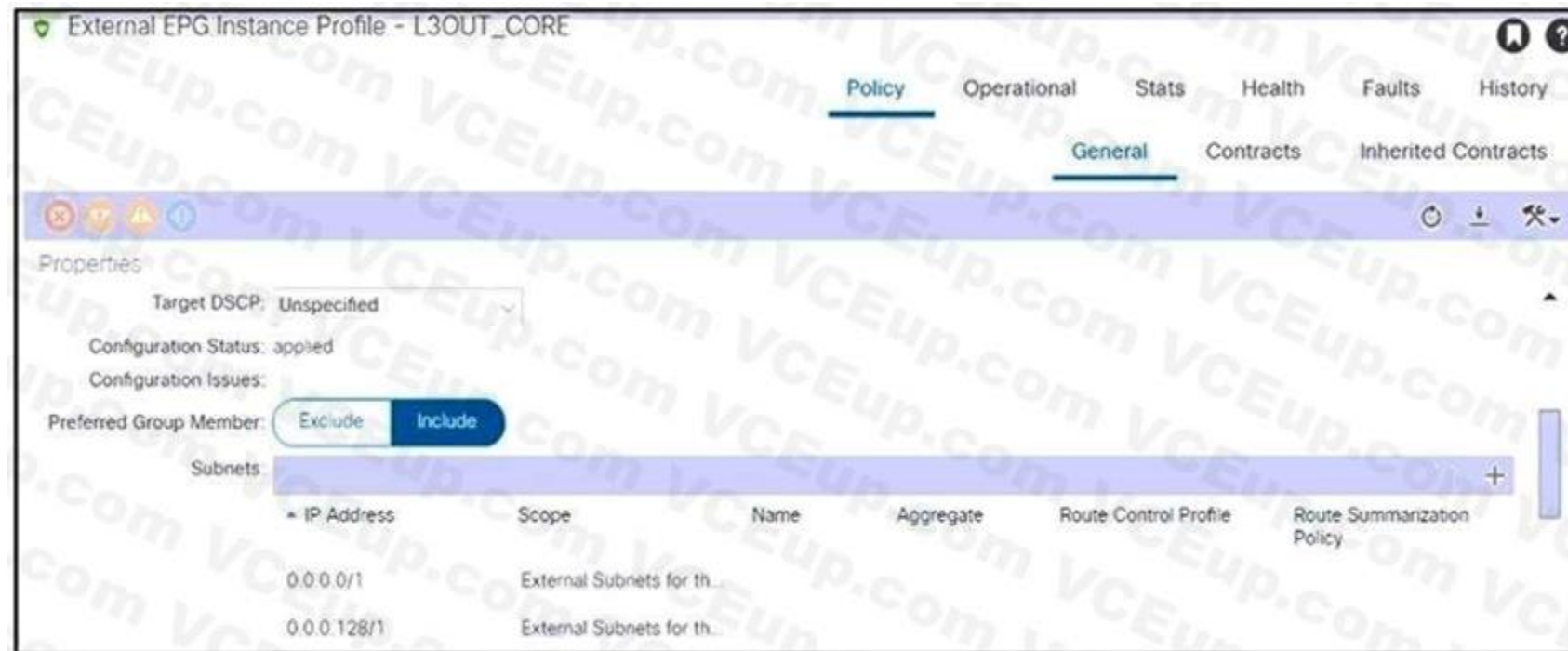
A. Set the app-to-db scope to Global.
B. Set the app-to-db scope to Application Profile.
C. Implement the app-to-db scope as VRF.
D. Implement the app-to-db as a Taboo contract.

Correct Answer: D

QUESTION 80
Refer to the exhibit.

Refer to the exhibit. An engineer configured subnets on the external EPG called L3OUT_CORE. The external endpoints in the 10.1.0.0/24 subnet can reach internal endpoints, but the external endpoints in the 172.16.1.0/24 subnet are unreachable. Which set of actions enables the connectivity?

A. Delete both external EPG subnets.
   Create the 0.0.0.0/1 subnet.

B. Delete the external EPG subnet 0.0.0.128/1.
   Create the 128.0.0.0/1 subnet.

C. Delete both external EPG subnets.

   Create the 0.0.0.0/0 subnet.

D. Delete the external EPG subnet 0.0.0.0/0.
   Create the 0.0.0.0/128 subnet.

Correct Answer: B
Section:

QUESTION 81
An engineer deploys a two-pod Cisco ACI Multi-Pod environment. Why should no more than two Cisco APIC controllers be deployed in the same pod?

A. to enable equal capacity to scale in each pod

B. to avoid losing all replicas of a shard if a pod fails

C. to avoid hair-pinning traffic that is destined for the primary APIC controller between pods

D. to ensure that all nodes in all pods have local access to a controller

Correct Answer: A
Section:

QUESTION 82

Refer to the exhibit.

Refer to the exhibit. An engineer configures communication between the EPGs in different tenants.
Which action should be taken to create the subnet?
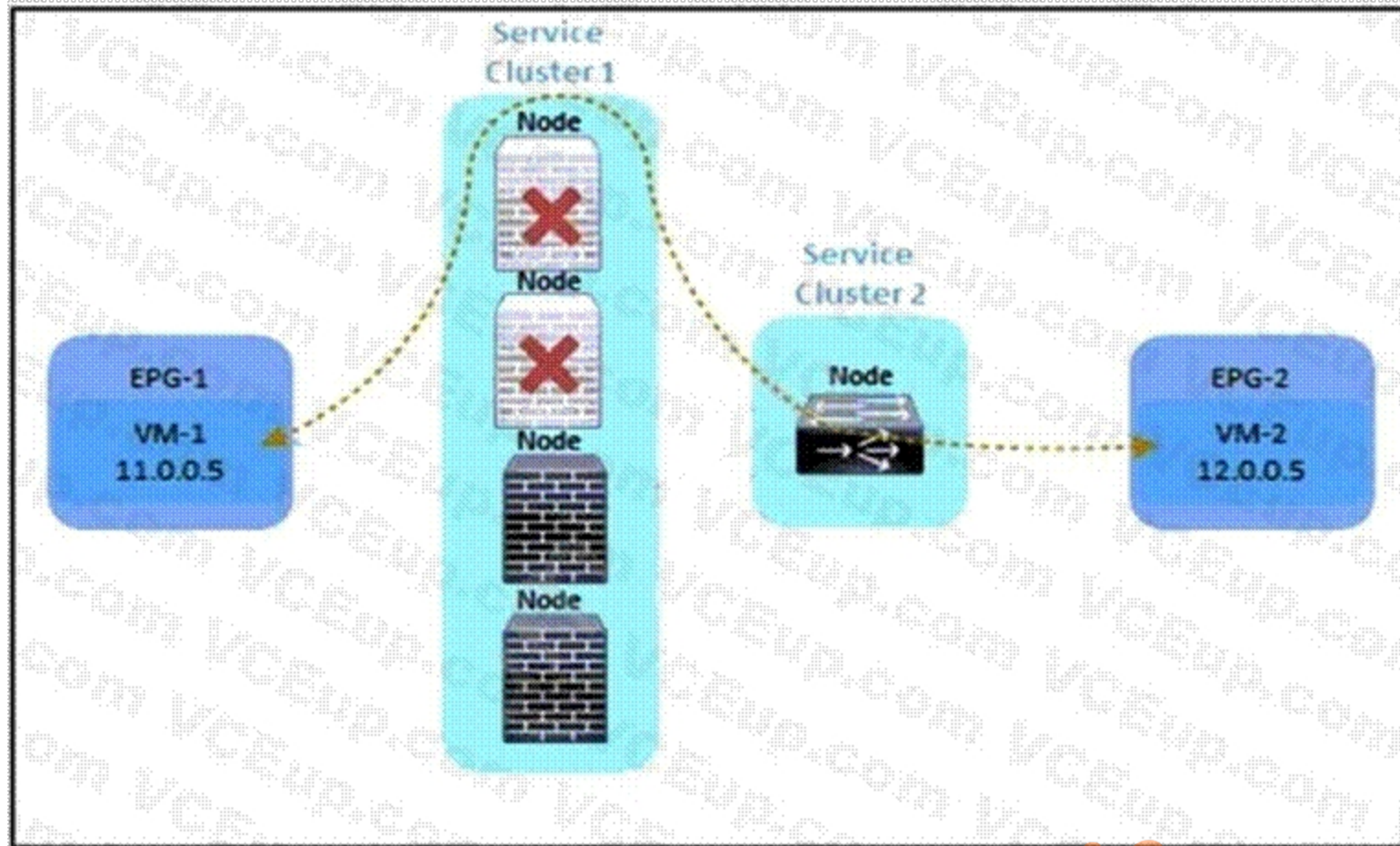
A. Change Scope to Shared between VRFs.
B. Leave Scope set to Private to VRF.
C. Add the L3Out for Route Profile value.
D. Change Scope to Advertised Externally.

Correct Answer: A
Section:

QUESTION 83
Refer to the exhibit.

Refer to the exhibit. An engineer must divert the traffic between VM-1 and VM-2 by using a Multi- Node service graph. The solution should prevent an insufficient number of available Layer 4 to Layer 7 devices in the first cluster. Which configuration set accomplishes this goal?

A. PBR node tracking tracking threshold with action bypass symmetric PBR resilient hashing
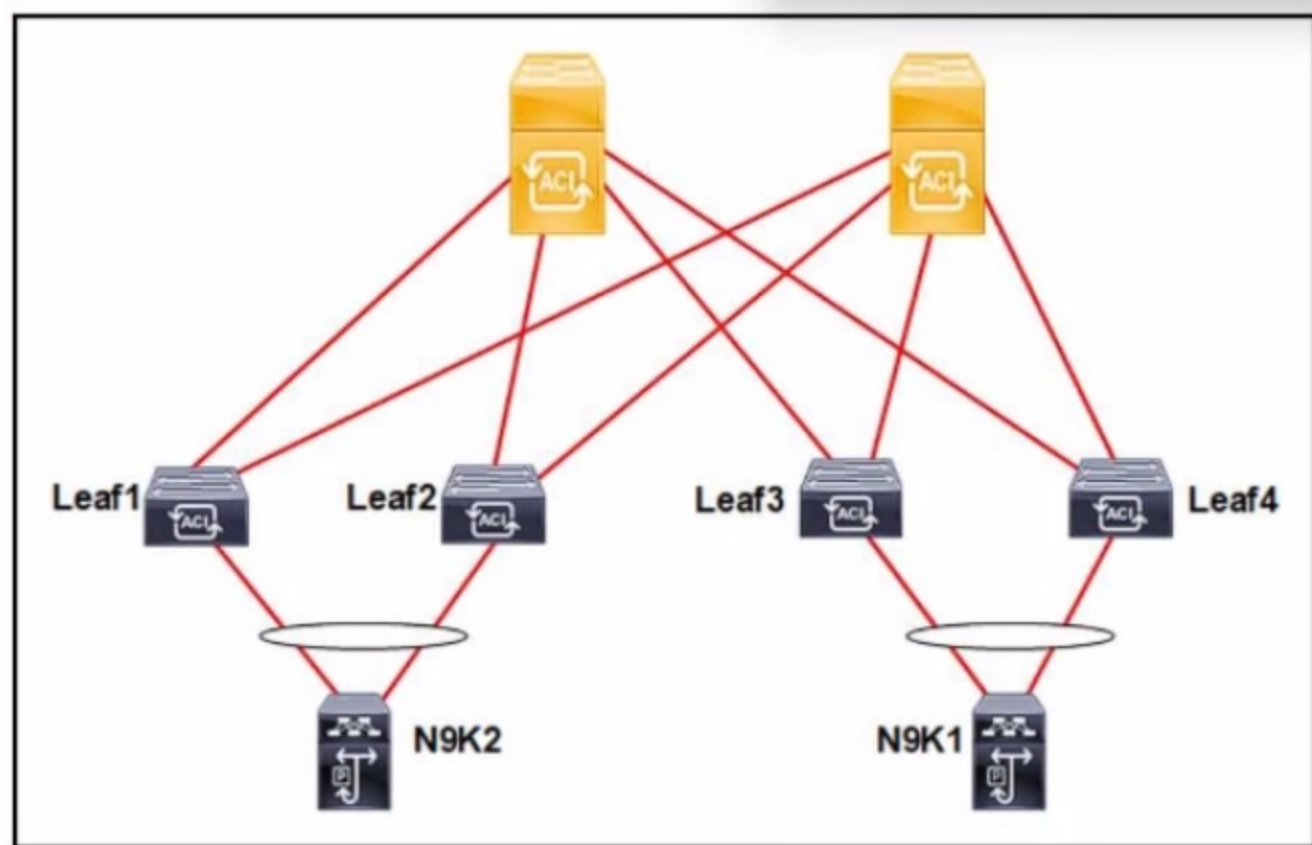B. PBR node tracking tracking threshold with action permit unidirectional PBR resilient hashing
C. PBR node tracking tracking threshold with action permit symmetric PBR resilient hashing
D. PBR node tracking tracking threshold with action deny symmetric PBR unidirectional PBR

Correct Answer: D
Section:

QUESTION 84
Refer to the exhibit.

The Cisco ACI fabric is built with L2Out to the N9K1 and N9K2 switches. The switches run the RSTP protocol. The requirement is for the Cisco ACI fabric to detect 5 from the N9K and for the fabric to be protected against loops. Which set of actions must be taken to meet the requirements?

A. Configure the N9K STP link type as point-to-point link. Enable MCP on ACI globally.

B. Configure the N9K STP link type as a point-to-point Enable MCP on the ACI leaf interfaces.

C. Configure the N9K STP link type as a shared link. Enable MCP on the ACI leaf interfaces.

D. Configure the N9K STP link type as a shared link. Enable MCP on ACI globally.

Correct Answer: D
Section:

QUESTION 85
A network engineer is implementing a Layer 3 Out in the Cisco ACI fabric. The data center core switches must connect to a pair of leaf switches and exchange routes via a routing protocol. In addition, the implementation must meet these criteria;
* The external switch interface must use 802.1Q tagging.
* Access to the internet for the ACI fabric must be the L3Out.
* The L3Out must use a routing protocol that has rapid convergence time and low CPU usage.
Which configuration set meets these requirements?

A. Configure the OSPF Protocol policy with an area of 0. Set up the Routed External Network object and Node Profile and select OSPF. Create the Switch profile and select VPC with the appropriate interfaces. Create the default network and associate it with the Routed Outside object.

B. Configure the BGP Protocol policy with the appropriate Autonomous System number. Configure an Interface policy and an External Bridged Domain. Create an External Bridged Network and use the configured VLAN pool. Build the Leaf profile and select the Routed sub-interface with the appropriate VLAN.

C. Implement the IS-IS Protocol policy with the selected Autonomous System number. Create the Routed Outside object and Node Profile and select IS-IS. Configure the Interface profile and select the Routed Interface with the appropriate interfaces. Create the External Network object.

D. Implement the EIGRP Protocol policy with the selected Autonomous System number. Create Routed Outside object and Node Profile and select EIGRP as the routing protocol. Build the Interface profile and select SVI and the appropriate VPC. Configure the External Network object with a network of 0.0.0.070.

Correct Answer: D
Section:

QUESTION 86
Refer to the exhibit.
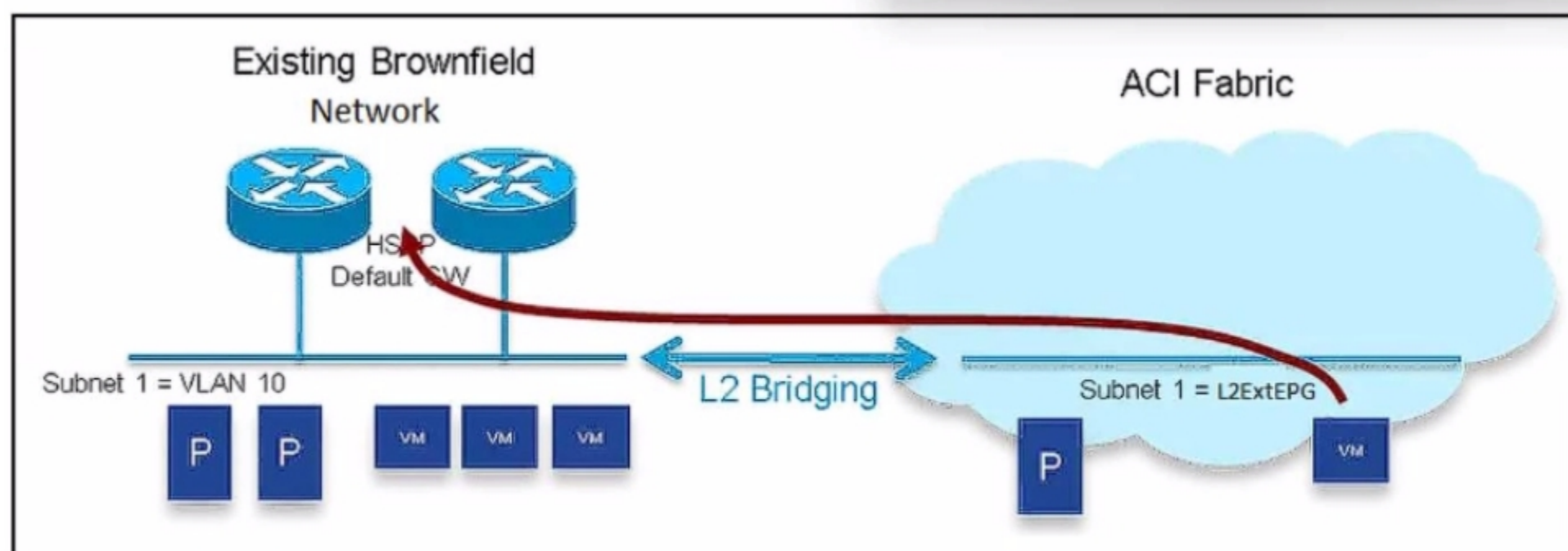
An engineer must migrate workloads from the brownfield network to the Cisco ACI fabric. The VLAN 10 default gateway remains in the router located in the brownfield Network. The bridge domain has already been associated with L2Out. Which two actions must be taken to migrate the workloads? (Choose two.)

A. Select Limit IP Learning to Subnet.
B. Configure Multi-Destination Flooding Flood in Encapsulation.
C. Set L2 Unknown Unicast Flood.
D. Map the MAC address of the default gateway to the bridge domain
E. Enable ARP Flooding

Correct Answer: C, E
Section:

QUESTION 87
How does Cisco ACI detect the IP address of a silent host that moved from one location to another without notifying a Cisco ACI leaf?

A. ARP requests are flooded in the bridge domain.
B. Bounce entries are installed on the leaf switch.
C. Endpoint announce messages are sent to COOP.
D. Silent hosts are detected by the ACI fabric.

Correct Answer: A
Section:
Explanation:
In a Cisco ACI fabric, when a silent host moves from one location to another without notifying the ACI leaf switch (e.g., via Gratuitous ARP), the detection mechanism depends on how the bridge domain is configured. Specifically, ARP flooding can help detect such silent hosts.

QUESTION 88
Cisco ACI fabric is integrated with a VMware environment. The engineer must back up the current configuration of the fabric and restore the vCenter password when the configuration is ... Which action accomplishes this goal?

A. Select SCP protocol for the remote location.
B. Create a Configuration Import Policy.
C. Enable the Global AES Encryption setting.
D. Set the Authentication type to Use Password.

Correct Answer: C
Section:
Explanation:
By enabling Global AES Encryption and ensuring secure data inclusion, you can safely back up and restore the Cisco ACI fabric configuration, including the vCenter password.

QUESTION 89
An engineer associates EPG-A with a VMM domain and sets the Deployment and Resolution preferences to Immediate. The host that will generate endpoints for EPG-A is attached to Leaf-and Leaf-102 using etht1/1. However, no configuration for EPG-A appears to have been pushed to the leaf switches. Which action must be taken for the configuration to be pushed to f-101 and Leaf-102?

A. Enable CDP or LLDP on the host.
B. Configure both ports for trunking.
C. Enable LACP on the leaf switch ports.
D. Disable and enable eth1/1 on both leaf switches

Correct Answer: A
Section:
Explanation:
The scenario involves associating EPG-A with a Virtual Machine Manager (VMM) domain, setting the Deployment and Resolution preferences to Immediate, and attaching the host (generating endpoints for EPG-A) to Leaf-101 and Leaf-102 via eth1/1. However, no configuration for EPG-A is pushed to the leaf switches. This suggests an issue with the discovery or communication between the ACI fabric and the host. Let's analyze the options based on Cisco ACI documentation.
Requirement Analysis
The VMM domain integration (e.g., VMware vCenter) relies on protocols like Cisco Discovery Protocol (CDP) or Link Layer Discovery Protocol (LLDP) to detect and map virtualized endpoints to the correct EPG.
The 'Immediate' preference ensures that policies are applied as soon as endpoints are detected, but this requires proper protocol support for host discovery.
No configuration on the leaf switches indicates a failure in endpoint detection or policy application.
Option Evaluation
A . Enable CDP or LLDP on the host:
ACI uses CDP or LLDP to discover hosts and their interfaces when integrated with a VMM domain. If the host does not have CDP or LLDP enabled, the ACI fabric cannot detect the host's attachment to Leaf-101 and Leaf-102, preventing EPG-A configuration from being pushed. Enabling these protocols on the host resolves the issue.
B . Configure both ports for trunking:
Configuring ports as trunk ports allows multiple VLANs, which is necessary for EPG encapsulation. However, this is typically handled by the VMM domain integration and does not address the lack of configuration push if discovery fails due to missing CDP/LLDP.
C . Enable LACP on the leaf switch ports:
Link Aggregation Control Protocol (LACP) is used for port channels (e.g., vPC), but it is not required for basic EPG deployment with VMM domains. The issue is related to host discovery, not link aggregation.
D . Disable and enable eth1/1 on both leaf switches:
This is a troubleshooting step to reset the port state, but it does not address the root cause (lack of CDP/LLDP for host detection). It is a reactive measure, not a solution.
Final Answer Justification
A is correct because enabling CDP or LLDP on the host allows the ACI fabric to detect the host and push the EPG-A configuration to Leaf-101 and Leaf-102. This is a standard requirement for VMM domain integration in ACI.
Primary Cisco
Reference:
Cisco APIC Layer 4 to Layer 7 Services Deployment Guide, 'VMM Domain Configuration.'

Cisco ACI Best Practices, 'Host Discovery with CDP/LLDP.'

QUESTION 90
An engineer is implementing an out-of-band (OOB) management access for the Cisco ACI fabric. The secure access must meet these requirements:
* Only GUI and secure shell must be allowed to access the management interfaces of the ACIs.
* The only IP ranges that must be permitted to connect the fabric will be 10.10.10.0724 and 192.168.15.0/24.
Which configuration set meets these requirements?

A. Implement HTTPS and SSH protocol filters in the OOB contract. Add the required subnets to the external network instance profile.

B. Create an out-of-band EPG in the external management entity. Associate the management profile with the OOB contract.

C. Set up static IPs on the management interfaces from the required IP range. Add the required subnets to the external network instance profile.

D. Create an out-of-band EPG in the common tenant. Associate the external network instance profile with the OOB contract.

Correct Answer: A
Section:
Explanation:
The engineer is implementing out-of-band (OOB) management access for the Cisco ACI fabric with the following requirements:
Only GUI (HTTPS) and Secure Shell (SSH) must be allowed to access the management interfaces.
Only IP ranges 10.10.10.0/24 and 192.168.15.0/24 must be permitted to connect.
This requires configuring access control and restricting IP ranges for OOB management.
Requirement Analysis
OOB management in ACI is typically handled via the Management Tenant (mgmt) and an OOB contract to define allowed protocols and sources.
The external network instance profile defines the permitted IP ranges for external access.
Option Evaluation
A . Implement HTTPS and SSH protocol filters in the OOB contract. Add the required subnets to the external network instance profile:
An OOB contract can specify allowed protocols (HTTPS on port 443 and SSH on port 22) to restrict access to GUI and SSH only. Adding the subnets 10.10.10.0/24 and 192.168.15.0/24 to the external network instance profile limits the source IP ranges, meeting both requirements.
B . Create an out-of-band EPG in the external management entity. Associate the management profile with the OOB contract:
This approach creates an EPG for OOB management, but it does not specify protocol filters (HTTPS/SSH) or IP range restrictions. The management profile alone does not enforce these requirements.
C . Set up static IPs on the management interfaces from the required IP range. Add the required subnets to the external network instance profile:
Assigning static IPs to management interfaces is a configuration step, but it does not enforce protocol restrictions (HTTPS/SSH) or limit source IP ranges via a contract. This is incomplete.
D . Create an out-of-band EPG in the common tenant. Associate the external network instance profile with the OOB contract:
The common tenant can host an OOB EPG, but this option lacks explicit protocol filtering (HTTPS/SSH) and relies on the external network instance profile, which may not fully address the GUI/SSH restriction.
Final Answer Justification
A is correct because it directly addresses both requirements: using an OOB contract to filter HTTPS and SSH protocols and adding the specified subnets to the external network instance profile to restrict IP ranges.
Primary Cisco
Reference:
Cisco APIC Management Tenant Configuration Guide, 'OOB Management Access.'
Cisco ACI Security Guide, 'Contract-Based Access Control.'

QUESTION 91
An engineer configures port-12 on Leaf-101 and Leaf-102 to connect to a new server, SVR-12. The new server will belong to EPG-12 and use encap VLAN-1212. The engineer configured SVR-12 as a VPC member port and statically bound the VPC member port to EPG-12. Which additional step must the engineer take to configure connectivity?

A. Create a VPC Explicit Protection Group for EPG-12 and VLAN-1212.

B. Associate a domain with EPG-12 that is associated with VLAN-1212.

C. Select VLAN-1212 on the EPG-12 Interface Policy Group.

D. Configure an LACP Interface Policy and apply it to EPG-12.

Correct Answer: B
Section:
Explanation:
The engineer configures port 1/2 on Leaf-101 and Leaf-102 to connect to a new server (SVR-12), which belongs to EPG-12 using VLAN-1212 encapsulation. The server is configured as a vPC member port and statically bound to EPG-12. The task is to ensure connectivity, indicating a missing configuration step.
Requirement Analysis
Static binding of a vPC member port to an EPG requires proper VLAN association and domain mapping.
vPC ensures redundancy, and the VLAN (1212) must be allocated and associated with the EPG via a domain (e.g., VMM or physical domain).
Option Evaluation
A . Create a VPC Explicit Protection Group for EPG-12 and VLAN-1212:
vPC Explicit Protection Groups are used for specific vPC configurations, but this is not a standard requirement for EPG binding and VLAN association.
B . Associate a domain with EPG-12 that is associated with VLAN-1212:
Associating a domain (e.g., VMM or physical domain) with EPG-12 and mapping VLAN-1212 ensures the VLAN is allocated and recognized by the fabric for the vPC ports. This is a critical step for static binding to work.
C . Select VLAN-1212 on the EPG-12 Interface Policy Group:
The Interface Policy Group defines port settings, but VLAN selection is managed via the domain association, not the policy group alone. This is insufficient.
D . Configure an LACP Interface Policy and apply it to EPG-12:
LACP is optional for vPC and not required for static EPG binding. The issue is VLAN/domain association, not link aggregation.
Final Answer Justification
B is correct because associating a domain with EPG-12 and VLAN-1212 ensures the fabric recognizes the VLAN encapsulation and applies the EPG configuration to the vPC ports.
Primary Cisco
Reference:
Cisco APIC vPC Deployment Guide.
Cisco ACI EPG and Domain Configuration Guide.

QUESTION 92
How many ARP requests are sent from leaf switches to perform host tracking for local endpoints?

A. 1
B. 2
C. 3
D. 4

Correct Answer: A
Section:

QUESTION 93
Cisco ACI fabric must detect all silent endpoints for the Layer 3 bridge domain. Which actions accomplish this goal?

A. Disable Unicast Routing. Enable L2 Unknown Unicast Hardware Proxy.
B. Disable Unicast Routing. Enable L2 Unknown Unicast Flood.
C. Enable Unicast Routing. Disable ARP Flooding.
D. Enable Unicast Routing. Enable ARP Flooding.

Correct Answer: C
Section:

QUESTION 94
Network engineer configured a Cisco ACI fabric as follows:
* An EPG called EPG-A is created and associated with a VMM domain called North. *The EPG-A is associated with BD-A and is in an application profile called Apps-A.

* The BD-A is associated with VRF-1 in the Prod tenant.
Which port group must be selected to place VMs in EPG-A?

A. Prod|VRF-1 |Apps-A|EPG-A
B. Prod|Business_Apps|BD-A|EPG-A
C. Prod|Apps-A|North|EPG-A
D. Prod|Apps-A|EPG-A

Correct Answer: D
Section:

QUESTION 95
An engineer implements a configuration backup on the Cisco APIC. The backup job must meet these requirements:
* The backup must transfer the encrypted data to the remote server.
* The transfer must be resumed if the connection is interrupted.
Which configuration set meets these requirements?

A. Select protocol HTTP in Create Remote Location. Choose JSON format in Configuration Export Policy.
B. Select protocol TFTP in Create Remote Location. Choose JSON format in Configuration Export Policy
C. Select protocol FTP in Create Remote Location. Choose XML format in Configuration Export Policy.
D. Select protocol SFTP in Create Remote Location. Choose XML format in Configuration Export Policy.

Correct Answer: D
Section:

QUESTION 96
An engineer discovered an outage on the mgmt0 port of Leaf113 and Leaf114. Both leaf switches were recently registered in the fabric and have health scores of 100. The engineer overs there is no IP address assigned to the mgmt0 interface of the switches. Which action resolves the outage?

A. Statically bind the mgmt0 interface of Leaf113 and Leaf114 to the oob-default EPG.
B. Enable Leaf 113 and Leaf 114 mgmt0 under the leaf switch.
C. Associate the oobbrc-default contract to Leaf113 and Leaf114.
D. Add Leaf113 and Leaf114 to the node management address policy.

Correct Answer: D
Section:
Explanation:
In Cisco ACI, the mgmt0 interface is used for out-of-band (OOB) management, and its IP address must be explicitly assigned through the Node Management Address Policy under the mgmt tenant. When new leaf switches are registered in the fabric, they do not automatically receive an IP address for their mgmt0 interfaces unless they are added to this policy.

QUESTION 97
When Layer 3 routed traffic is destined to a Cisco ACI fabric, which mechanism does ACI use to detect silent hosts?

A. gratuitous ARP
B. inverse ARP
C. ARP gleaning
D. proxy ARP

Correct Answer: C
Section:
Explanation:
The question asks about the mechanism Cisco ACI uses to detect silent hosts when Layer 3 routed traffic is destined to the ACI fabric. A 'silent host' refers to an endpoint that does not initiate traffic or send ARP requests, making detection challenging without specific mechanisms. Let's evaluate the options based on Cisco ACI documentation and best practices.
Requirement Analysis
Layer 3 routed traffic implies that the ACI fabric is handling IP routing, and the detection mechanism must work within the context of the bridge domain and endpoint learning.
Silent hosts require passive detection methods since they do not generate active traffic (e.g., ARP requests).
The solution must align with ACI's endpoint learning and proxy mechanisms.
Option Evaluation
A . Gratuitous ARP:
Gratuitous ARP (GARP) is a mechanism where a host announces its IP-to-MAC mapping to update network devices. However, this requires the host to send the GARP, which a silent host does not do. ACI can use GARP when hosts are active, but it is not the primary method for silent hosts.
B . Inverse ARP:
Inverse ARP is used in Frame Relay or ATM networks to map DLCI/VPI-VCI to IP addresses. It is not applicable to ACI's IP-based Layer 3 routing or silent host detection.
C . ARP Gleaning:
ARP gleaning is a passive mechanism in ACI where the fabric learns the IP-to-MAC binding of a silent host by inspecting ARP traffic destined to or from other devices (e.g., routers or proxies) within the same bridge domain. When Layer 3 routed traffic passes through the ACI fabric, the leaf switches can glean the silent host's information from ARP responses or related traffic, even if the host itself is silent.
D . Proxy ARP:
Proxy ARP is used by ACI to respond to ARP requests on behalf of silent hosts when the hardware proxy feature is enabled. While this helps with connectivity, it is a response mechanism, not a detection method. Detection still relies on gleaning or other passive learning.
Final Answer Justification
C is correct because ARP gleaning is the specific mechanism ACI uses to detect silent hosts when Layer 3 routed traffic is involved. The fabric passively learns the host's IP and MAC addresses from ARP traffic generated by other devices (e.g., routers or active hosts) within the bridge domain, which is particularly effective in routed environments.
Primary Cisco
Reference:
Cisco APIC Layer 3 Networking Configuration Guide, 'Endpoint Learning with ARP Gleaning.'
Cisco ACI Best Practices, 'Silent Host Detection in Routed Networks.'

QUESTION 98
Which switch type is discovered first in the Cisco ACI fabric discovery process?

A. leaf
B. access
C. distribution
D. spine

Correct Answer: A
Section:
Explanation:
The question asks which switch type is discovered first in the Cisco ACI fabric discovery process. The ACI fabric consists of spine and leaf switches, and the discovery process is a critical initial step to establish the fabric topology. Let's analyze this based on Cisco ACI documentation.
Requirement Analysis
The ACI fabric discovery process involves the Application Policy Infrastructure Controller (APIC) identifying and registering switches to form the network topology.
The process relies on protocols like Link Layer Discovery Protocol (LLDP) and Cisco Discovery Protocol (CDP) to detect connected devices.
The sequence of discovery is determined by the physical connectivity and the role of switches in the fabric.
Option Evaluation
A . leaf:
In the Cisco ACI fabric, the discovery process begins with the leaf switches. When the APIC is powered on and connected to the fabric, it first discovers the leaf switches directly attached to it or other initial points of

connectivity. Leaf switches are the access layer devices that connect endpoints and are the starting point for fabric topology discovery. Once leaf switches are identified, they assist in discovering the spine switches.

B . access:

'Access' is not a specific switch type in the ACI fabric context. It may refer to external access switches, but these are not part of the initial fabric discovery process, which focuses on spine and leaf switches.

C . distribution:

'Distribution' is a traditional network layer, but it does not apply to the ACI fabric, which uses a spine-leaf architecture. This option is irrelevant.

D . spine:

Spine switches are discovered after the leaf switches because the leaf switches provide the connectivity path to the spines. The APIC uses the leaf switches to map the spine layer in the fabric topology.

Final Answer Justification

A is correct because the ACI fabric discovery process starts with the leaf switches. The APIC initially detects leaf switches connected to it or other initial points, and then uses this information to discover the spine switches, establishing the full fabric topology.

Primary Cisco

Reference:

Cisco APIC Getting Started Guide, 'Fabric Bring-Up and Discovery.'

Cisco ACI Design Guide, 'Fabric Discovery Process.'

QUESTION 99

An Cisco ACI leaf switch learns the source IP address of a packet that enters the front panel port of the switch. Which bridge domain setting is used?

A. Unicast Routing

B. L3 Unknown Multicast Flooding - Flood

C. ARP Flooding

D. Unknown Unicast - Hardware proxy

Correct Answer: A

Section:

Explanation:

The question asks which bridge domain setting is used when a Cisco ACI leaf switch learns the source IP address of a packet entering the front panel port. This involves understanding how ACI handles endpoint learning and IP address association within a bridge domain.

Requirement Analysis

When a packet enters a leaf switch's front panel port, ACI learns the source IP and MAC address of the endpoint to populate its endpoint table.

The bridge domain settings control how IP addresses are learned and routed, especially for Layer 3 traffic.

The correct setting must enable the leaf switch to associate the source IP with the endpoint.

Option Evaluation

A . Unicast Routing:

The 'Unicast Routing' setting in a bridge domain enables Layer 3 routing and allows the leaf switch to learn the source IP address of a packet by associating it with the MAC address and VLAN. When enabled, the switch performs IP-to-MAC mapping and updates the endpoint database, which is the standard mechanism for learning source IP addresses from incoming traffic.

B . L3 Unknown Multicast Flooding - Flood:

This setting controls how unknown multicast traffic is handled at Layer 3 (e.g., flooding or dropping). It is unrelated to learning the source IP address of a unicast packet entering the front panel port.

C . ARP Flooding:

ARP Flooding allows ARP requests to be flooded within the bridge domain, which helps resolve IP-to-MAC mappings for silent hosts or external devices. However, it is not the primary setting for learning the source IP of an active packet; it is a supplementary mechanism.

Final Answer Justification

A is correct because enabling 'Unicast Routing' in the bridge domain allows the leaf switch to learn the source IP address of a packet entering the front panel port by associating it with the source MAC address and VLAN. This is the foundational setting for Layer 3 endpoint learning in ACI.

D. Unknown Unicast - Hardware Proxy: The 'Hardware Proxy' setting optimizes unicast traffic by using a proxy to respond to ARP requests, reducing flooding. While it aids in endpoint management, it is not the setting that directly enables learning the source IP address from incoming packets.
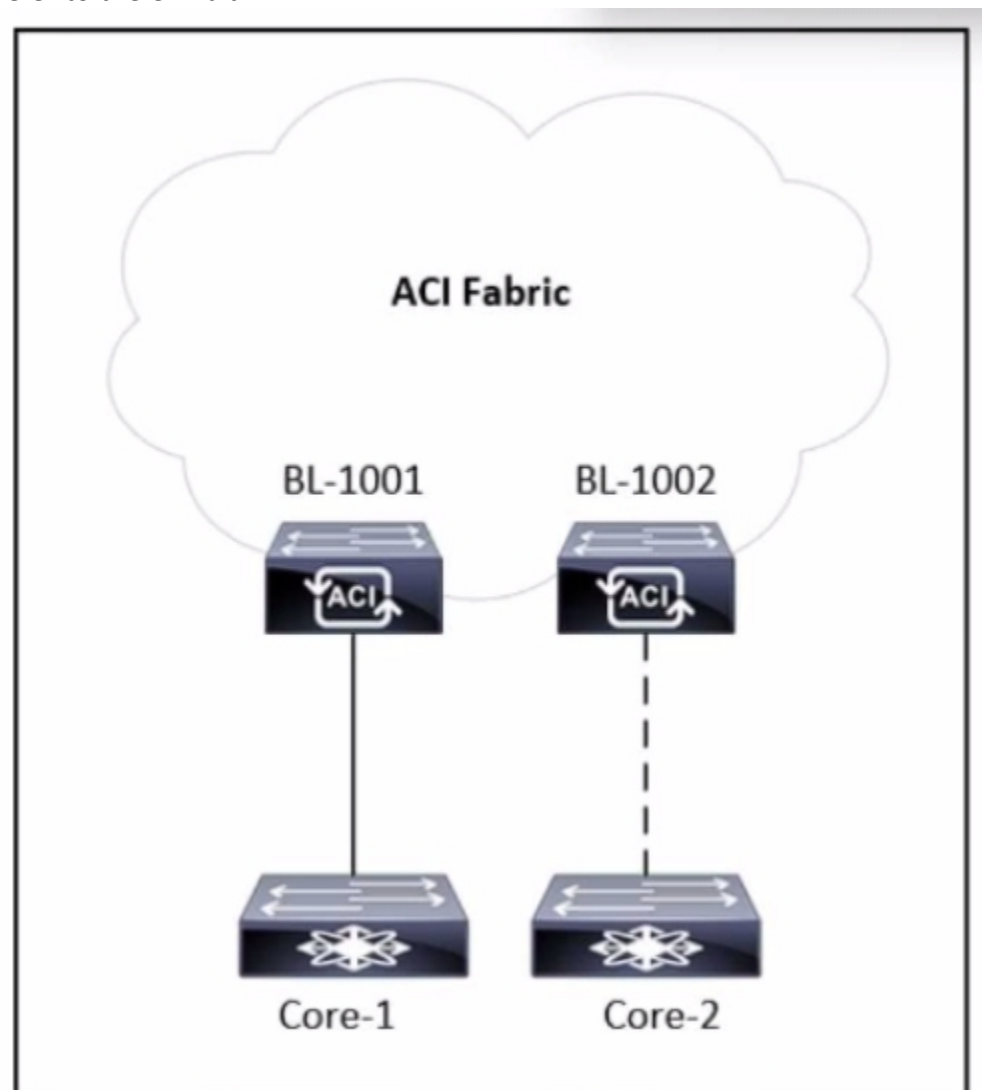
Primary Cisco

Reference:

Cisco APIC Layer 3 Networking Configuration Guide, 'Bridge Domain Unicast Routing.'
Cisco ACI Endpoint Group Configuration Guide, 'IP Address Learning.'

QUESTION 100
Refer to the exhibit.

Refer to the exhibit. A tenant is configured with a single L3Out and a single-homed link to the core router called Core-1. An engineer must add a second link to the L3Out that connects to Core-2 router. Which action allows the traffic from Core-2 to BL-1002 to have the same connectivity as the traffic from Core-1 to BL-1001?

A. Add a second path to the logical interface profile of the existing L3Out

B. Add a second subnet to the external EPG to the existing L3Out.

C. Add a second OSPF interface profile to the logical interface profile.

D. Add a second interface to the external domain to the existing L3Out.

Correct Answer: A
Section:
Explanation:
The scenario involves a tenant configured with a single L3Out and a single-homed link from the ACI fabric (via border leaf BL-1001) to a core router (Core-1). The engineer must add a second link to the L3Out, connecting to Core-2 via BL-1002, ensuring that traffic from Core-2 to BL-1002 has the same connectivity as traffic from Core-1 to BL-1001. The exhibit shows a single-homed setup with BL-1001 and BL-1002 as potential border leaves, with a dashed line indicating a planned second link.
Requirement Analysis
The existing L3Out is single-homed to Core-1 via BL-1001, and the goal is to extend it to a multi-homed configuration with Core-2 via BL-1002.

'Same connectivity' implies that the second link must be integrated into the existing L3Out configuration, sharing the same routing policies, external EPG, and subnet reachability.

The solution must leverage ACI's L3Out framework to add the new path without creating a separate L3Out or altering the current routing setup unnecessarily.

Option Evaluation

A . Add a second path to the logical interface profile of the existing L3Out:

The logical interface profile in an L3Out defines the interfaces (e.g., routed ports or sub-interfaces) and their associations with nodes (border leaves). Adding a second path to this profile allows the inclusion of the new link from BL-1002 to Core-2, ensuring it operates under the same L3Out configuration (e.g., routing protocol, external EPG). This maintains consistent connectivity and leverages ACI's multi-homing support.

B . Add a second subnet to the external EPG to the existing L3Out:

Adding a subnet to the external EPG defines additional networks advertised or learned via the L3Out, but it does not address the addition of a new physical link or path. This is irrelevant to the connectivity requirement for the second link.

C . Add a second OSPF interface profile to the logical interface profile:

While the L3Out uses OSPF (implied by the context), adding a second OSPF interface profile would create a separate routing instance, which is unnecessary and could disrupt consistency. The existing OSPF configuration can be extended via the logical interface profile.

D . Add a second interface to the external domain to the existing L3Out:

The external domain associates VLAN pools, but it does not define paths or interfaces for L3Out connectivity. This option is incorrect as it confuses domain configuration with interface path management.

Final Answer Justification

A is correct because adding a second path to the logical interface profile of the existing L3Out integrates the new link from BL-1002 to Core-2 into the same routing and policy framework, ensuring equivalent connectivity to the Core-1 to BL-1001 link. This aligns with ACI's support for multi-homed L3Outs.

Primary Cisco

Reference:

Cisco APIC Layer 3 Networking Configuration Guide, 'L3Out Multi-Homing.'

Cisco ACI Best Practices, 'Expanding L3Out Connectivity.'

QUESTION 101
An engineer wants to configure Cisco ACI switches to use authenticated ZMQ when communicating with the proxy spine. Which configuration allows MD5 ZMQ messages only?

A. IS-IS password using MD5

B. COOP Group policy in strict mode

C. COOP Group policy in compatible mode

D. BGP password using MD5

Correct Answer: B
Section:
Explanation:
https://www.cisco.com/c/en/us/td/docs/dcn/aci/apic/5x/security-configuration/cisco-apic-security-configuration-guide-release-52x/protocol-authentication-52x.html

QUESTION 102
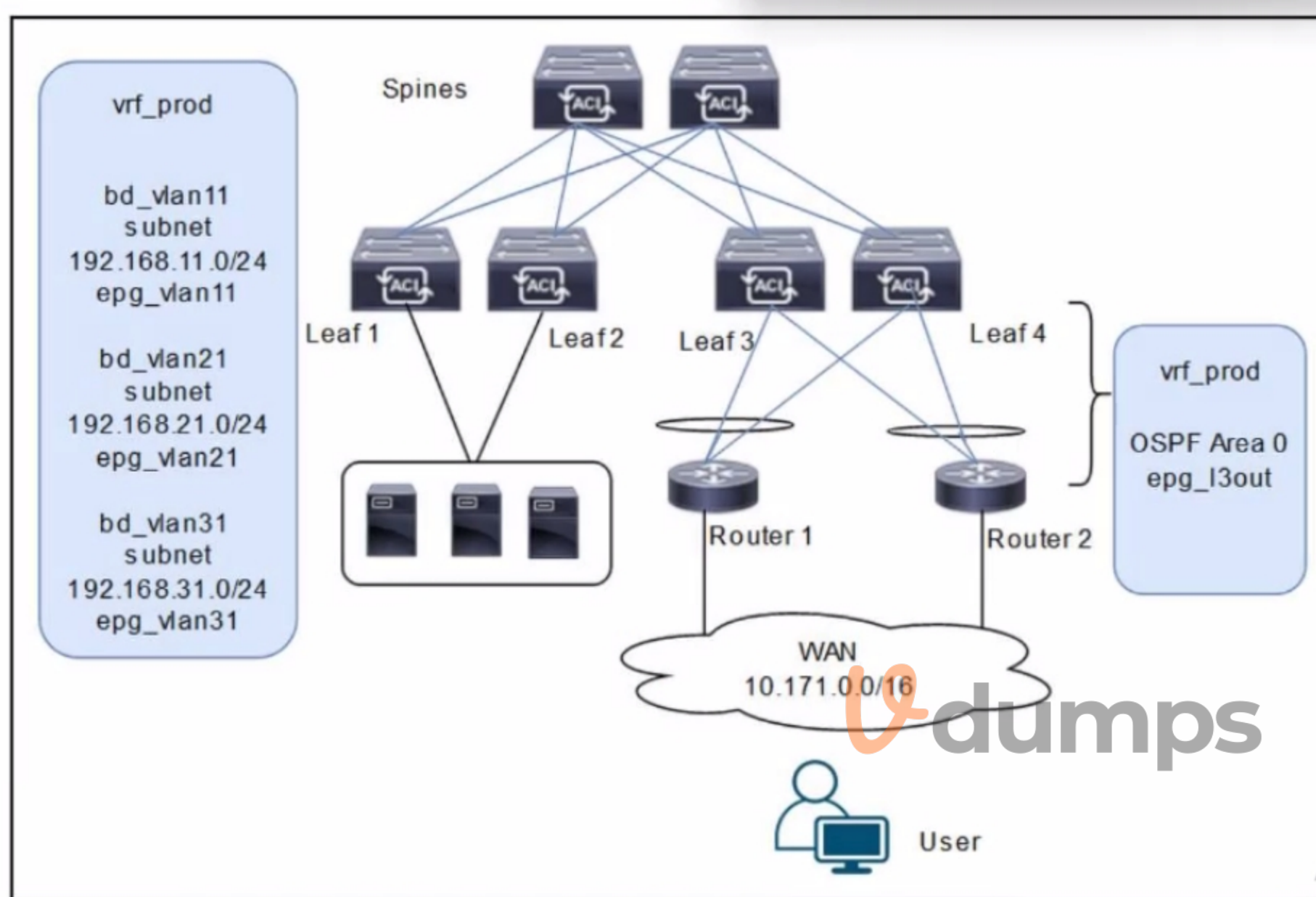Which feature is used to program policy CAM on a leaf switch without sending traffic from VM to the leaf?

A. immediate resolution immediacy

B. immediate deployment immediacy

C. on-demand deployment immediacy

D. on-demand resolution immediacy

Correct Answer: B
Section:

QUESTION 103
Refer to the exhibit.

A customer is deploying a WAN with these requirements: *Routers 1 and 2 must receive only routes 192.168.11.0/24 and 192.168.21.0724 from the Cisco ACI fabric *Reachability to the WAN users must be permitted only for the servers that are located in vrf_prod.

Which settings must be configured to meet these objectives?

A. Configure the subnets 192.168.11.0/24 and 192.168.21.0/24 as Private to VRF Configure the subnet 192.168.31.0/24 as Advertised Externally. Configure an EPG subnet 0.0.0.0/0 as External Subnets for External EPG.

B. Configure the subnets 192.168.11.0/24 and 192.168.21.0/24 as Private to VRF. Configure the subnet 192.168.31.0/24 as Advertised Externally. Configure an EPG subnet 0.0.0.0/0 as Shared Route Control Subnet.

C. Configure the subnets 192.168.11.0/24 and 192.168.21.0/24 as Advertised Externally. Configure the subnet 192.168.31.0/24 as Private to VRF. Configure an EPG subnet 0.0.0.0/0 as Shared Route Control Subnet.

D. Configure the subnets 192.168.11.0/24 and 192.168.21.0/24 as Advertised Externally. Configure the subnet 192.168.31.0/24 as Private to VRF. Configure an EPG subnet 0.0.0.0/0 as External Subnets for External EPG.

Correct Answer: D
Section:
Explanation:
The scenario involves deploying a WAN with Cisco ACI, where Routers 1 and 2 (connected via an L3Out with OSPF Area 0) must receive specific routes (192.168.11.0/24 and 192.168.21.0/24) from the ACI fabric, and reachability to WAN users must be permitted only for servers in vrf_prod. The diagram shows three bridge domains (bd_vlan11, bd_vlan21, bd_vlan31) with their respective subnets and EPGs, all under vrf_prod, along with an L3Out (epg_l3out) for WAN connectivity.
Requirement Analysis
Routers 1 and 2 must receive only routes 192.168.11.0/24 and 192.168.21.0/24:

These subnets belong to bd_vlan11 and bd_vlan21, respectively. To advertise these routes to Routers 1 and 2 via the L3Out, they must be marked with the appropriate scope in the bridge domain configuration.

In ACI, the 'Advertised Externally' scope on a subnet ensures that it is advertised to external routers via the L3Out routing protocol (OSPF in this case).

Reachability to WAN users must be permitted only for servers in vrf_prod:

This implies that only the subnets in vrf_prod (192.168.11.0/24, 192.168.21.0/24, and 192.168.31.0/24) should be accessible, but WAN users should only reach specific subnets based on policy.

The external EPG (epg_l3out) represents the WAN users (10.171.0.0/16), and its subnet scope must control inbound reachability.

The subnet 192.168.31.0/24 (bd_vlan31) should not be advertised to the WAN, as it is not listed in the routes Routers 1 and 2 should receive.

Option Evaluation

A . Configure the subnets 192.168.11.0/24 and 192.168.21.0/24 as Private to VRF. Configure the subnet 192.168.31.0/24 as Advertised Externally. Configure an EPG subnet 0.0.0.0/0 as External Subnets for External EPG:

Setting 192.168.11.0/24 and 192.168.21.0/24 as 'Private to VRF' means they are not advertised externally, which fails the requirement for Routers 1 and 2 to receive these routes.

Setting 192.168.31.0/24 as 'Advertised Externally' incorrectly advertises this subnet to the WAN, which is not desired.

The 'External Subnets for External EPG' scope on 0.0.0.0/0 allows WAN users to reach all subnets in vrf_prod, which is correct for reachability.

Conclusion: Fails the first requirement (route advertisement).

B . Configure the subnets 192.168.11.0/24 and 192.168.21.0/24 as Private to VRF. Configure the subnet 192.168.31.0/24 as Advertised Externally. Configure an EPG subnet 0.0.0.0/0 as Shared Route Control Subnet:

Similar to Option A, setting 192.168.11.0/24 and 192.168.21.0/24 as 'Private to VRF' prevents their advertisement to the WAN, failing the first requirement.

Setting 192.168.31.0/24 as 'Advertised Externally' incorrectly advertises this subnet.

The 'Shared Route Control Subnet' scope allows route leaking between VRFs, which is irrelevant here since there is only one VRF (vrf_prod) and no route leaking is required.

Conclusion: Fails both requirements (route advertisement and reachability control).

C . Configure the subnets 192.168.11.0/24 and 192.168.21.0/24 as Advertised Externally. Configure the subnet 192.168.31.0/24 as Private to VRF. Configure an EPG subnet 0.0.0.0/0 as Shared Route Control Subnet:

Setting 192.168.11.0/24 and 192.168.21.0/24 as 'Advertised Externally' ensures these subnets are advertised to Routers 1 and 2 via OSPF, meeting the first requirement.

Setting 192.168.31.0/24 as 'Private to VRF' prevents its advertisement to the WAN, which aligns with the requirement since only 192.168.11.0/24 and 192.168.21.0/24 should be advertised.

The 'Shared Route Control Subnet' scope on 0.0.0.0/0 in the external EPG is incorrect for controlling reachability. This scope is used for route leaking, not for defining which subnets are accessible from the external EPG.

Conclusion: Meets the first requirement but fails the second (reachability control).

D . Configure the subnets 192.168.11.0/24 and 192.168.21.0/24 as Advertised Externally. Configure the subnet 192.168.31.0/24 as Private to VRF. Configure an EPG subnet 0.0.0.0/0 as External Subnets for External EPG:

Setting 192.168.11.0/24 and 192.168.21.0/24 as 'Advertised Externally' ensures these subnets are advertised to Routers 1 and 2 via OSPF, meeting the first requirement.

Setting 192.168.31.0/24 as 'Private to VRF' prevents its advertisement to the WAN, which is correct since only the specified subnets should be advertised.

The 'External Subnets for External EPG' scope on 0.0.0.0/0 in the external EPG (epg_l3out) allows WAN users (10.171.0.0/16) to reach all subnets in vrf_prod, which includes 192.168.11.0/24, 192.168.21.0/24, and 192.168.31.0/24. This satisfies the second requirement, as servers in vrf_prod are accessible, and contracts can further restrict access if needed (though not specified in the question).

Conclusion: Meets both requirements (route advertisement and reachability).

Final Answer Justification

D is correct because:

It ensures that only 192.168.11.0/24 and 192.168.21.0/24 are advertised to Routers 1 and 2 by setting their scope to 'Advertised Externally.'

It keeps 192.168.31.0/24 private to vrf_prod by setting its scope to 'Private to VRF.'

It allows WAN users to reach all vrf_prod subnets (including servers) by setting 0.0.0.0/0 as 'External Subnets for External EPG,' fulfilling the reachability requirement.

Primary Cisco

Reference:

Cisco APIC Layer 3 Configuration Guide, 'Configuring Subnets for L3Out.'

Cisco ACI Routing and Forwarding Guide, 'External EPG and Subnet Scopes.'

Cisco ACI Best Practices, 'Controlling Route Advertisement and Reachability.'

QUESTION 104
Cisco ACI fabric has three different endpoints S1, S2. and S3. These endpoints must communicate with each other without contracts. These objects have been created in APIC:
*Two EPGs named DNS_EPG and Database_EPG
*Two application profiles. PROD_App and Data_App
*Two bridge domains DNS_BD and Database_BD
*PROD_APP and Database_BD mapped to Tenant PROD
*Data_App and DNS_BD mapped to Tenant Data
Which set of actions completes the fabric configuration?

A. Add S1, S2, S3 under Database_EPG. MAP Database_EPG under PROD_ App. Associate Datbase_EPG with DNS_BD.

B. Add S1, S2, S3, under DNS_EPG. MAP DNS_EPG to Data_App. Associate DNS_EPG with Dns_BD.

C. Add S1, S2, S3 under DNS_EPG. MAP DNS_EPG to Data_App. Associate DNS_EPG with Database_BD.

D. Add S1, S2, S3 under Database_EPG. MAP Database_EPG under Data_App. Associate Datbase_EPG with Database_BD.

Correct Answer: B
Section:

QUESTION 105
A company is implementing a new security policy to track system access, configuration, and changes. The network engineer must enable the log collection to track user login and logout attempts. In addition, any configuration changes such as a fabric node failure must be collected in the logs. The syslog policy is configured to send logs to the company SEIM appliance. Which two log types must be enabled to meet the security requirements? (Choose two.)

A. error

B. audit

C. event

D. health

E. fault

Correct Answer: B, E
Section:

QUESTION 106
Refer to the exhibit.

A network engineer must improve the configuration backup process and the configuration restore process. The current ACI solution is integrated with VMMs and third-y.. L4-L7 devices. The process requires that no additional information be re-entered when importing the configuration for a fully-functional state. Which configuration configures the port policy?

A. Enable the Global AES Encryption Setting.

B. Select the JSON data format to be used when exporting

C. Create target DNs for all tenants.
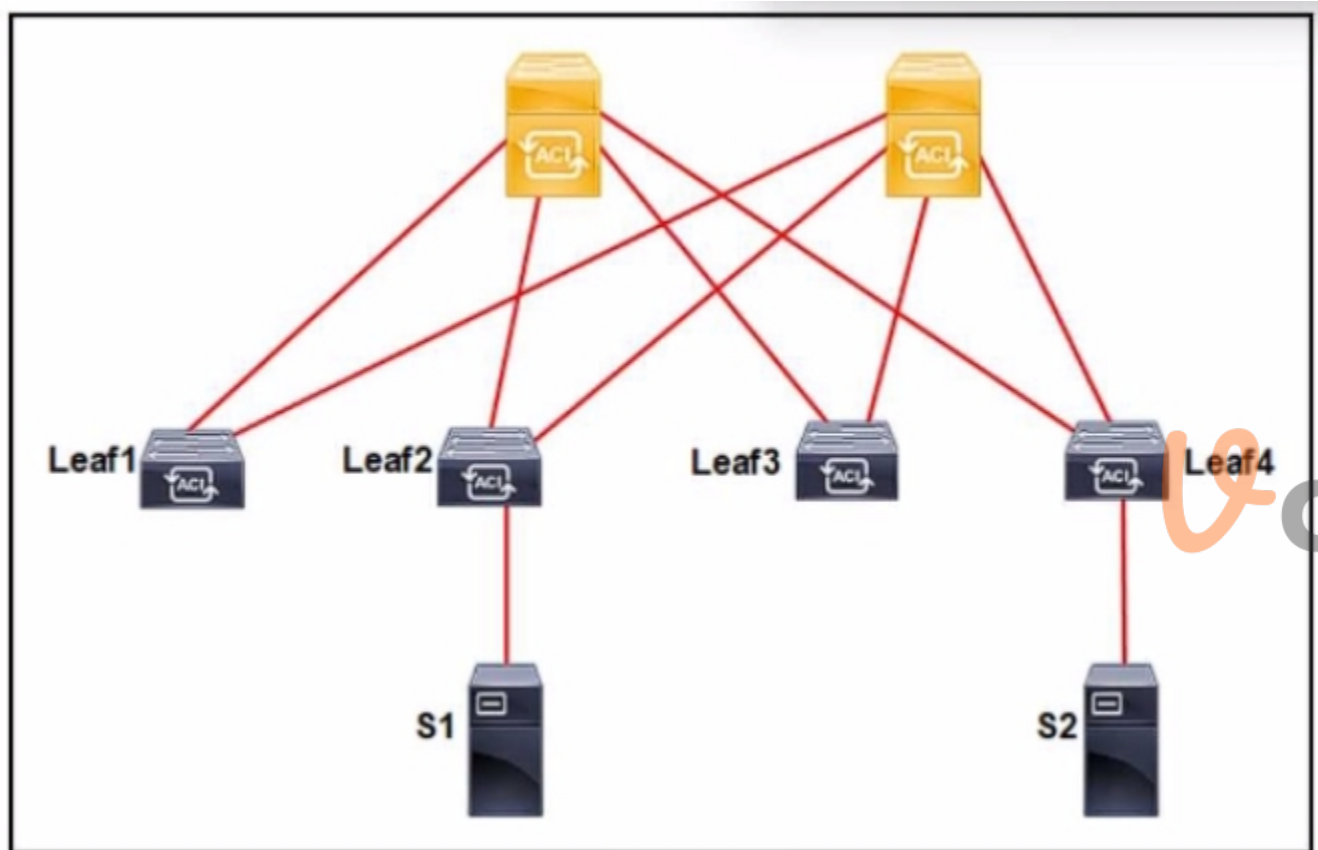
D. Configure a local snapshot.

Correct Answer: A
Section:
Explanation:
Enabling AES encryption ensures that sensitive data, such as credentials for VMMs and third-party integrations, is securely encrypted in the backup file. This is essential for a fully functional restore without requiring re-entry of sensitive details.

QUESTION 107
Refer to the exhibit.

An application called App_1 is hosted on the server called S1. A silent host application. App_2. is hosted on S2. Both applications use the same VLAN encapsulation, which action forces Cisco ACI fabric to learn App_2 on ACI leaf 2?

A. Set Multi-Destination Flooding to Drop.

B. Set Unicast Routing to Hardware Proxy.

C. Set L2 Unknown Unicast to Flood.

D. Set L3 Unknown Multicast to Optimized flood.

Correct Answer: C
Section:
Explanation:
The scenario involves an application (App_1) on server S1 and a silent host application (App_2) on S2, both using the same VLAN encapsulation. The task is to force the ACI fabric to learn App_2 on Leaf-2. A silent host does not generate traffic, so special handling is needed.
Requirement Analysis
A silent host requires flooding (e.g., ARP or unknown unicast) to be learned by the fabric when it moves or is detected.

The goal is to ensure Leaf-2 learns App_2's endpoint.

Option Evaluation

A . Set Multi-Destination Flooding to Drop:

Dropping multi-destination traffic prevents learning, which is counterproductive for a silent host.

B . Set Unicast Routing to Hardware Proxy:

Hardware proxy optimizes unicast routing but does not force learning of a silent host via flooding.

C . Set L2 Unknown Unicast to Flood:

Enabling L2 unknown unicast flooding causes the fabric to flood traffic (e.g., ARP) across the bridge domain, allowing Leaf-2 to learn App_2's MAC address even if it is silent.

D . Set L3 Unknown Multicast to Optimized Flood:

This applies to multicast traffic and is irrelevant for learning a silent host's MAC address.

Final Answer Justification

C is correct because flooding L2 unknown unicast traffic ensures the ACI fabric learns App_2 on Leaf-2 by propagating ARP or other discovery traffic.

Primary Cisco

Reference:

Cisco ACI Endpoint Learning Guide, 'Flooding for Silent Hosts.'

Cisco APIC Bridge Domain Configuration Guide.

QUESTION 108

An engineer configures an L3Out in VRF-1 that was configured for Import Route Control Enforcement. The L3Out uses OSPF to peer with a core switch. The L3Out has one external EPG, it has been configured with a subnet 10.1.0.0/24. Which scope must be set to force 10.1.0.0/24 to populate in the routing table for VRF-1?

A. External Subnet for External EPG

B. Export Route Control Subnet

C. Shared Route for External EPG

D. Import Route Control Subnet

Correct Answer: D
Section:
Explanation:
The 'Import Route Control Subnet' scope is used to control which external routes are imported into the ACI fabric's routing table

QUESTION 109

What is a characteristic of a Cisco ACI Multi-Pod?

A. It eliminates the need to deploy multicast in the Layer 3 network that interconnects the pods.

B. Spines use BGP peering with IPN to send out the TEP pool prefix for the local pod.

C. It manages the configuration of different Cisco ACI pods using a single common Cisco APIC cluster.

D. A VPNv4 address family is used to exchange endpoint information between spines.

Correct Answer: C
Section:
Explanation:
In a Cisco ACI Multi-Pod architecture, multiple pods (each with its own leaf-and-spine topology) are interconnected via an Inter-Pod Network (IPN). The key characteristic of the Multi-Pod setup is that it is managed as a single fabric by a single APIC cluster, simplifying operations and maintaining consistency across all pods.

QUESTION 110

An engineer plans a Cisco ACI firmware upgrade. The ACI fabric consists of three Cisco APIC controllers, two spine switches, and four leaf switches. Two leaf switches have 1-Gb copper s for bare metal servers, and the other two leaf switches have 10-Gb SFP ports to connect storage. Which set of actions accomplishes an upgrade with minimal disruptions?

A. Upgrade the APIC controllers by selecting the desired firmware and choosing Upgrade Now. Divide the switches into two upgrade groups: spines and leaves. Start the firmware upgrade on the spine upgrade group and then proceed with the leaf upgrade group.

B. Upgrade the APIC controllers by initiating the upgrade process that uses the most recent uploaded firmware. Divide the switches into three upgrade groups: spines, 1-Gb switches, and 10-Gb switches. Start the firmware upgrade on the spine upgrade group and then proceed with the other two groups.

C. Upgrade the APIC controllers by selecting the desired firmware and choosing Upgrade Now. Divide the switches into two upgrade groups with one spine, one 1-Gb switch, and one 10-Gb switch per group. Start the firmware upgrade on the first upgrade group and when it finishes, start the second upgrade group.

D. Upgrade the APIC controllers as a single group by selecting the firmware and choosing Upgrade Now. Divide the switches into four upgrade groups with one switch per group. Start the firmware upgrade on each upgrade group in succession until all four are complete.

Correct Answer: C
Section:

QUESTION 111
An engineer needs to avoid loops in the ACI network and needs an ACI leaf switch to error-disable an interface if the interface receives an ACI-generated packet. Which action meets these requirements?

A. Enable the Loop Indication by MCP event in the Error Disabled Recovery Policy.
B. Set Rogue EP Control in the Endpoint Controls Policy.
C. Uncheck the Loop Protection Action check box in MCP Instance Policy.
D. Change the default administrative state of the global MCP Instance Policy.

Correct Answer: D
Section:
Explanation:
MisCabling Protocol (MCP) detects loops from external sources (i.e., misbehaving servers, external networking equipment running STP, etc.) and will err-disable the interface on which ACI receives its own packet. Enabling this feature is a best practice, and it should be enabled globally and on all interfaces, regardless of the end device. For MCP to be enabled, you need to have it enabled globally and on a per-interface basis. While MCP is enabled on all interfaces by default, it is not turned ''on'' until you also enable it globally. The global configuration knob for MCP can be enabled by configuring the global settings here: Fabric > Access Policies > Global Policies > MCP Instance Policy default. https://www.cisco.com/c/dam/en/us/solutions/collateral/data-center-virtualization/application-centric-infrastructure/aci-guide-using-mcp-mis-cabling-protocol.pdf

QUESTION 112
A Cisco ACI fabric is integrated with a Cisco ASA firewall using a service graph under the tenant called Operations. The fabric must permit the firewall used on tenant Operations to be referenced by the tenant called Management. Which export action must be used to accomplish this goal?

A. Layer4-Layer7 device
B. router configurations
C. service graph template
D. device selection policies

Correct Answer: A
Section:
Explanation:
In Cisco ACI, when a service graph is deployed under one tenant (e.g., Operations) and needs to be referenced by another tenant (e.g., Management), the Layer 4-Layer 7 (L4-L7) device export action is used. This allows the firewall or other L4-L7 devices defined in the service graph to be shared across tenants. By exporting the L4-L7 device, the configuration enables the Management tenant to reference and use the firewall deployed in the Operations tenant.

QUESTION 113
Refer to the exhibit.
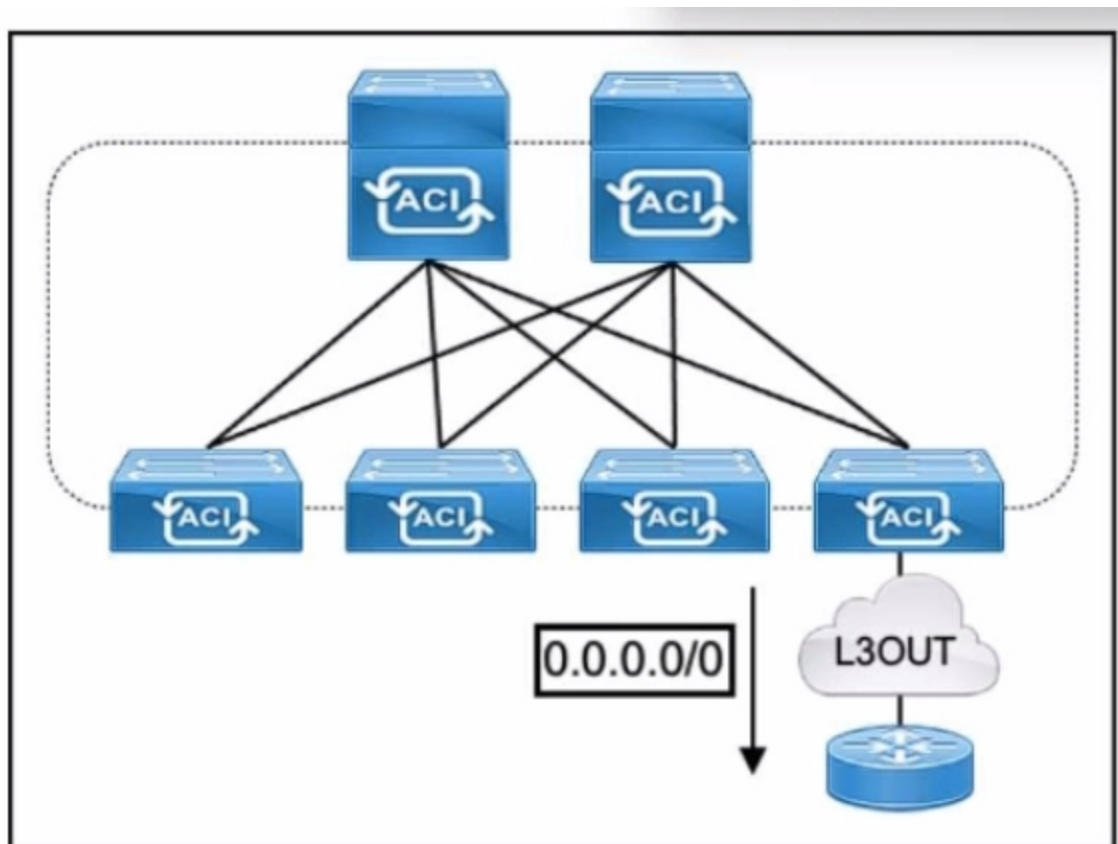
Refer to the exhibit. The default route is not present in the routing tables of the Cisco ACI leaf switches. All static and direct routes are currently being redistributed and advertised. Which jn must be taken to advertise a default route on the eBGP L30ut?

A. Configure a static default route on the ACI node profiles with next-hop null.

B. Create a Default Route Leak Policy on the L3Qut.

C. Enable a BGP peer prefix policy set to Always.

D. Implement an export route map matching 0.0.0.0/0.

Correct Answer: B
Section:
Explanation:
For external connections to the fabric that only require a default route, there is support for originating a default route for OSPF, EIGRP, and BGP L3Out connections. If a default route is received from an external peer, this route can be redistributed out to another peer following the transit export route control as described earlier in this article. A default route can also be advertised out using a Default Route Leak policy. This policy supports advertising a default route if it is present in the routing table or it always supports advertising a default route. The Default Route Leak policy is configured in the L3Out connection.
https://www.cisco.com/c/en/us/td/docs/switches/datacenter/aci/apic/sw/2-x/L3_config/b_Cisco_APIC_Layer_3_Configuration_Guide/b_Cisco_APIC_Layer_3_Configuration_Guide_chapter_010100.html

QUESTION 114
An engineer must attach an ESXi host to the Cisco ACI fabric. The host is connected to Leaf 1 and has its gateway IP address 10.10.10.254/24 configured inside the ACI fabric. A new wall is attached to Leaf 2 and mapped to the same EPG and BD as the ESXi host. The engineer must migrate the gateway of the ESXi host to the firewall. Which configuration set complishes this goal?
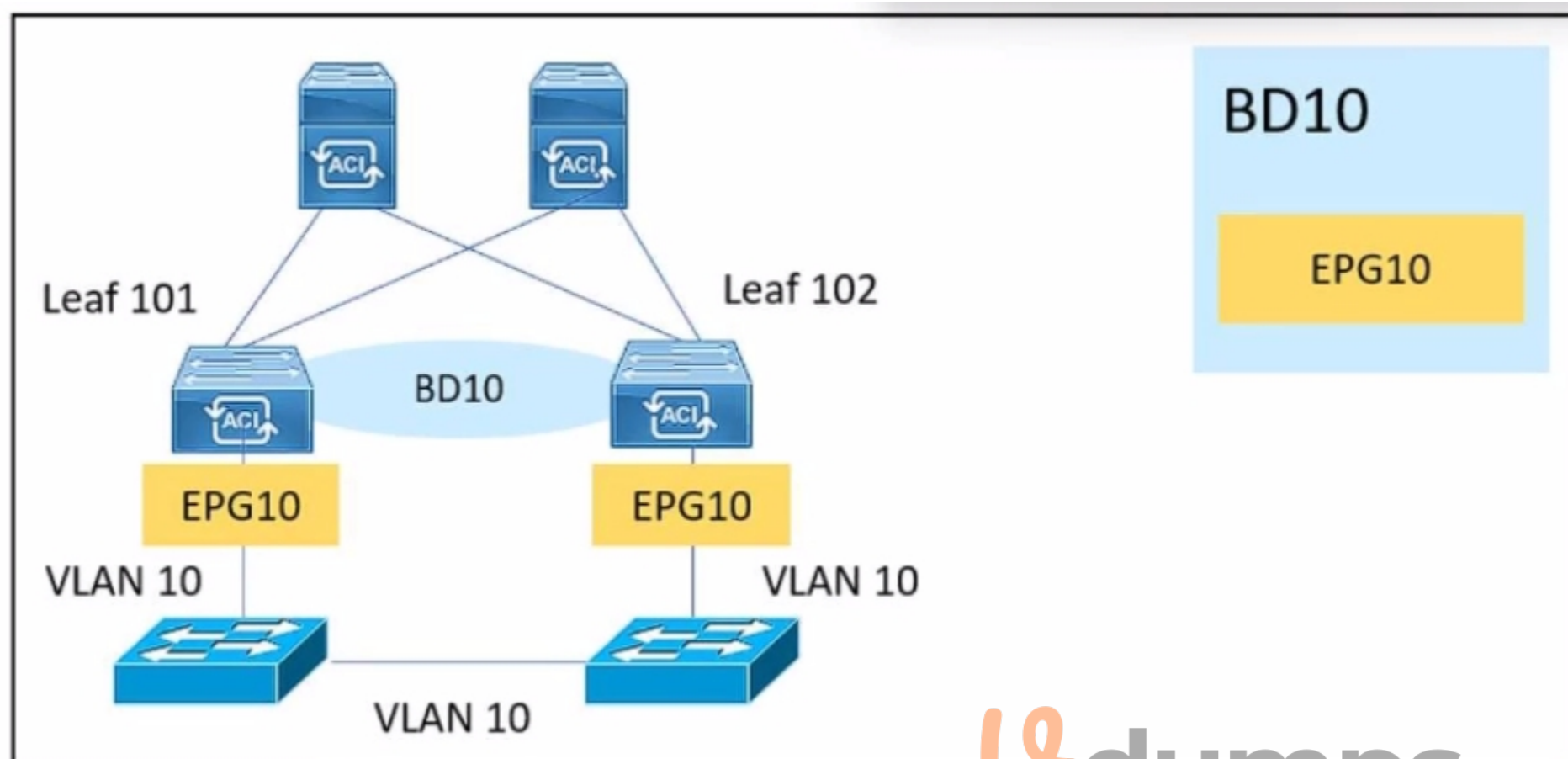
A. Disable unicast routing. Configure IP address 10.10.10.254/24 on the ACI BD.

B. Enable unicast routing. Configure IP address 10.10.10.254/24 on the ACI EPG.

C. Disable unicast routing. Define IP address 10.10.10.254/24 on the firewall.

D. Enable unicast routing. Set IP address 10.10.10.254/24 on the firewall.

Correct Answer: C
Section:

QUESTION 115
Refer to the exhibit.

An engineer is implementing a BPDU filter on external switch interfaces That face the Cisco ACI fabric to prevent excessive TCNs from impacting the fabric. Which Configuration must be applied on Cisco ACI to avoid a Layer 2 loop?

A. Apply an MSTP instance on Cisco ACI.
B. Configure MCP globally
C. implement BPDU Guard.
D. Enable STP on downlinks.

Correct Answer: B
Section:

QUESTION 116
What is the name of the automatically configured VLAN 3600 presented during Cisco ACI fabric discovery?

```
F101# show ip int brief vrf overlay-1
utput truncated for brevity...)
nterface Status for VRF "overlay-1"(4)
rface Address Interface Status
/49 unassigned protocol-up/link-up/admin-up
/49.34 unnumbered protocol-up/link-up/admin-up
)
/50 unassigned protocol-up/link-up/admin-up
/50.35 unnumbered protocol-up/link-up/admin-up
)
8 10.233.44.30/27 protocol-up/link-up/admin-up
10.233.46.32/32 protocol-up/link-up/admin-up
23 10.233.44.32/32 protocol-up/link-up/admin-up

F101# show vlan extended
N Name Encap Ports
--- --------------------- ------------------- ----------------------------
ra:default vxlan-4 6 9660132, Eth1/1, Eth1/2, Eth1/47
-3600
```

A. Transit VLAN
B. Infrastructure VLAN
C. Loopback VLAN
D. Fabric VLAN

Correct Answer: B
Section:
Explanation:
The Infrastructure VLAN is automatically configured during the Cisco ACI fabric discovery process. This VLAN, often referred to as the ''infra VLAN,'' is used to enable internal communication between the ACI fabric components, such as the leaf and spine nodes. It is vital for the overlay network and the control plane functionality. In the provided output, VLAN 3600 represents the Infrastructure VLAN, which is configured for inter-node communication.

QUESTION 117
An engineer configures SNMP for an ACI fabric and created an SNMP Monitoring Destination Group called snmp_dgroup1. Snmp_dgroup1 is configured with the server hostname and Community password. An SNMP policy called snmp_podpolicy1 is configured to enable SNMP and add an SNMP Client Group Profile called snmp_clgroup1. Snmp_podpolicy1 is associated default pod profile via a pod policy group named podl. Which configuration set must the engineer enable to complete the SNMP configuration?

A. Configure an SNMP management contract to permit all traffic. Associate snmp_podpolicy1 with an SNMP pod profile.
B. Configure the OOB management contract to permit all traffic. Associate snmp_clgroup1 with the SNMP management EPG.
C. Configure the OOB management contract to permit UDP 162. Associate snmp_dgroupl with the OOB management EPG.
D. Configure an SNMP management contract to permit UDP 162. Associate the SNMP Source to snmp_clgroup1.

Correct Answer: C
Section:
Explanation:
https://community.cisco.com/t5/documentos-data-center/configuraci%C3%B3n-snmp-para-aci/ta-p/4680520